

tion in some to be pitied, in some to be blamed. I would gladly say more upon it, and I think I could prove more than what I have affirmed to the satisfaction of you all. But I must have done; I could not, having been for the best part of my life a missionary, have satisfied my conscience if I had not said thus much on this occasion.

Well;—what is to be the future of Hong-kong? “Things are on the turn,” one and another have said to me, “and we shall soon be having as good times as in the best days of Sir Hercules Robinson.” Not so soon, say I, unless we have war again, which may God forbid! The first thing must be to get back and foster the junk trade. Then when I try to pierce into the future, I see a railway from Kowloon to Canton. I see a trunk line from Hank’ow to Canton, and branch lines connecting with it from the great provinces of the

west, and from Cheh-kéang and Fuh-kéet on the east. I see this island the natural outlet to all Europe, and by the Pacific lines to the United States; for the mineral wealth and various produce of one half the great Empire. I see itself the home of a happy population, three times more numerous than the present, and foreigner and Chinese dwelling together in mutual appreciation. I see in its harbour a forest of smoking tunnels, with hardly a white-winged sailing vessel among them; opium is a phantom of the past. The emigration of the poor goes on from it on principles approved and guarded by the Chinese and other governments, while the enterprise and integrity of its merchants, the kindness, forbearance, and purity of all its inhabitants are spoken of with delight from Peking to Hae-nan, from the farthest west of Sze-ch’uen to the borders of the Eastern sea.

CHINESE MEDICINE.

The treatment of disease is an art differing from all others, in that the physician has to deal with a living organism, a machine which has, to a certain extent, the power of self-renovation.

In any mechanical art, the man who deals with a machine must be familiar with the structure of the parts and with the action of the whole when put together. Without such knowledge it is impossible to remedy defects or to correct irregularities.

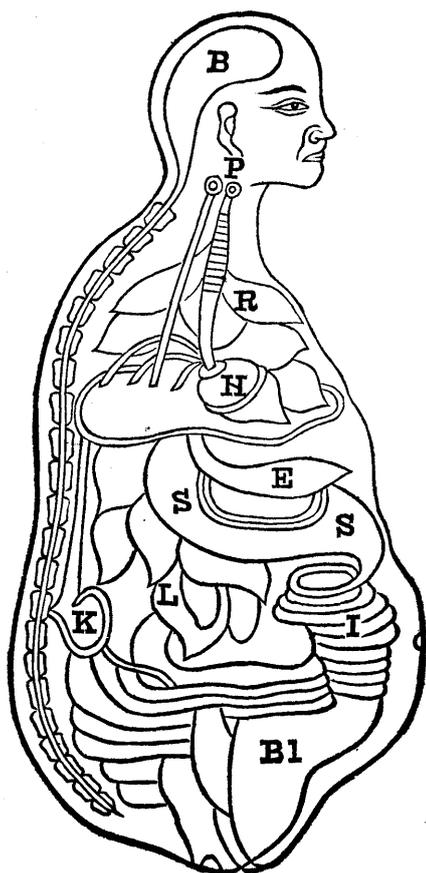
The human body is the most complicated machine in existence. It consists of hundreds of parts, some of which are solid, some semi-solid and others fluid, yet all working harmoniously. In the actions,

reactions and relations of the parts we find that mechanical, chemical and vital forces are all at work, each modifying the others and developing the various organs, renewing decay, correcting irregularities, and supplying the physical and mental forces required in the affairs of life.

It might be supposed that a knowledge of the structure and functions of the parts of so delicate and complicated a machine would be indispensable to one who undertook to treat its disorders, and such is admitted to be the fact. Observation, however, shows us that ignorant quacks, taking advantage of the self-renovating powers of the human body, assume to heal its ma-

ladies, thus imposing on the ignorant and unsuspecting.

It is unnecessary to go into any argument to prove that the professors of the healing art in China are ignorant of all that is known of anatomy, physiology, and chemistry. Their happy minds have never been tortured with the labor of acquiring the knowledge which modern research has



imposed on the unlucky candidates for honors in our Western Medical schools. One lofty step carries them over all these into the more congenial, though misty fields of theory, whose the imagination roves at pleasure, and the repulsive sights of the dissecting room and toils of the laboratory are not even dreamed of.

The accompanying diagram* gives an outline of the knowledge of the human system, as taught, not by irresponsible pretenders, but by authority of the Imperial College at Peking.

While the œsophagus is rightly made to pass into the Stomach *S*, the Windpipe *P* goes through the Lungs *R* into the Heart *H*, and three tubes passing posteriorly from the heart *H*, connect it with the Spleen *E*, the Liver *L* and the Kidneys *K*.

The kidneys *K* are shown in the diagram to be connected with the spinal column, and from them originates a subtle influence which passes upward to the brain and downward to the spermatic cords. One of the three tubes issuing from *H* the heart enters the kidneys, and thus they have a connection, *purely imaginary*, with the brain, heart and generative organs, giving them a place of the first importance in the animal economy, as is indicated by the location between them of the Ming Mûn,† the gate of life.

These and other false notions have been handed down undisputed through many generations and carry with them the authority of sages who have all this time been worshipped as superior beings. It would be a bold hand that would strike a blow at such sacred relics.

The fact of the circulation of the blood seems to have been known to the Chinese in ancient times. But of course no true notion of the circulation or of the functions of arteries and veins as distributing and returning the blood, has ever been developed. Air and blood are both supposed to permeate the body, but in tubes which have only an imaginary existence, as may be seen in diagrams which exhibit the theories of the pulse.

* The diagram is copied from Dr. S. Wells Williams' *Middle Kingdom*, and it is a reduced copy of one issued by authority of the Imperial College and published in books and sheets, which are to be had at any of the book stores.

† 命門.

The study of the pulse has been a favorite one for the Chinese physician in all ages, for it afforded his practised fingers some clue to the disease, and at the same time afforded a cloak to cover his ignorance, which the poor patient could not distinguish from a garment of profound knowledge. It is most marvellous with what eyes the Chinese Doctor looks into his patient through the pulse. His three fingers play on the three points of each wrist, and the twenty-four indications at each of these points exhibit to his mind's eye the exact state of all the organs, and he can not only tell the disease and its locality but even decide the sex of the undeveloped fœtus. To detail the minute relations of the three pulses in each wrist with the internal organs would weary and disgust the reader. How such dreamy nonsense could be handed down from age to age and be universally received, is a most astonishing instance of man's credulity. Did we not know it to be true, it would surpass belief that the physicians of a nation so old, so distinguished for her literary men and so practical in some departments, should receive with unquestioning submission the falsehoods of their predecessors, and that so many ages should have rolled away without the development of the most distant approach to truth in the systems taught concerning the structure and functions of the human body.

The physicians of China, therefore, labor not only under the disadvantage of ignorance, but they are burdened by absolute falsehood at the very foundation on which to build a rational system of medicine.

The want of knowledge of the internal structure of the body has led to the more complete study of the external surface, and it has been mapped out into numerous sections, each of which has some special relation to some of the internal organs. Names are given to all these localities, the relations of the *yam* and the *yeung* in each of them to the same principles in

particular internal organs pointed out, so that the physician may be guided aright in the application of the moxa or plaster, and secure the medicinal virtue reaching the diseased spot. These fanciful relations can of course lead only to error and confusion in whatever may be undertaken as a curative measure.

It is not necessary to stop to prove that those who have no knowledge of healthy structure and function can of necessity have no correct knowledge of disease, which is deranged structure and function. Taking this for granted, the conclusion is inevitable that Chinese physicians are wholly deficient in the essential elements of a medical education, viz: Anatomy, physiology and pathology.

There is, however, one department of medicine in which the physicians of China may be supposed by some to have attained a knowledge in advance of their theories and superior even to what is possessed by western nations. Their *Materia Medica* presents us a most imposing list of remedial agents derived from the animal, vegetable and mineral kingdoms. The "Pun Tso," the standard work on *Materia Medica*, contains a list of nearly 1,900 substances used in medicine. The description of their properties and uses, and their combination in 11,896 formulæ, contained in the Pun-tso, is from the works of over 800 authors. We have here an amount of experience and observation in the use of medicines with scarcely a parallel in the world,—a mine which only needs to be explored to yield us treasures of knowledge.

The practice of medicine is in all countries more or less empirical, that is, founded on experience, and we therefore have a right to look for some substantial addition to our means of combating disease from the accumulated experience of ages which is recorded in Chinese books. We have, however, been disappointed. No one can call to mind a single remedy or mode of cure for which we are indebted to the physicians

of the oldest and most populous nation on the globe.

An examination of their medicines and the theory of using them will explain why this is so.

If we divide the Chinese medicines into two classes, 1st, such as are used in common by Chinese and Western nations, and 2nd, such as are peculiar to the Chinese, we shall find that the properties and uses of the first class are much better understood by western nations than by the Chinese.

We shall also find that of the second class a great many are absolutely inert, and many of them disgusting as well as inert. The use of so many medicines that are absolutely inert, and to some of which such wonderful virtues are attached that they are sold at fabulously high prices, demonstrates to us the inability of Chinese physicians to make accurate observations. All confidence is also lost in the results of their experience in the use of active medicines. Ginseng is an example to the point. Both the native and foreign root are in universal use, but the former is much more highly valued, and choice specimens are sometimes sold for one hundred times their weight in silver. While this article is entirely rejected by Western physicians, its virtues in many diseases are so highly esteemed that it enters as an essential ingredient into numerous native prescriptions. The same is true with regard to pearls, tigers' bones, rhinoceros' horns, petrified dragons' teeth, fossil bones and numerous other articles, which are absolutely without medicinal virtue, so that we cannot receive statements of the curative virtues of any substance from a Chinese source, as having any authority. In all their observations they fail to separate the true from the false, the real from the apparent. In other words, their experience because it is not corrected by science is altogether valueless or at least unreliable.

On further inquiring into the principles on which Chinese medicines are used, it

becomes apparent to the most casual observer, that no confidence is to be placed in their deductions from the effects of medicines. The high value attached to ginseng is because of the real or fancied resemblance of the root to the form of the human body.

In the absence of reliable knowledge, the human mind has ever sought for some theory to satisfy the demands of inquiring minds. The Chinese have accomplished this by the invention of the theory of the "Yam and Yeung," which in their speculations are two principles or powers in nature, the male and female, ever active in producing the physical, chemical and vital phenomena which occur within and around us. Not only are all the obscure phenomena of inorganic change accounted for by the action and reaction of these powers, but the occult processes of living bodies in all the complicated actions of their organs both in health and disease are explained by calling in the aid of these imaginary principles. Each of the organs of the body is the seat of one or the other of these principles, and when they are equalized, there is repose or a state of health. If the male principle is in the ascendant, there is disease and it is inflammatory. If the female principle predominates, the disease is of a low or typhoid character. There is also the relation of the organs to heat and cold, wetness and dryness and the mutual relations, actions and reactions on each other and the human body, which make up an amount of absurdity truly wonderful, but venerable for its antiquity.

The application of medicines to the cure of disease is guided, not by their known therapeutical properties, but by certain fanciful relations supposed to subsist between the organs of the body and the five elements, viz. earth, wood, metal, water and fire on the one part, and between these elements and medicinal substances on the other. For example, each of the five organs, the heart, lungs, liver, spleen

and kidneys, is related to one of the five elements, and the relation of medicines, in color, taste &c., to the five elements, determines their uses. Thus the liver is related to the element wood, and as metal has control over wood, medicines related to the element metal are those which are for this reason applicable to the cure of disorders of the liver. So with regard to all the medicines and all the organs of the body. A round of imaginary relationships is established, the actual virtues of the medicines are overlooked, active and inert substances employed with the same confidence, thus exhibiting an amount of ignorance and absurdity in dealing with the lives and health of men which is absolutely inconceivable. That the minds of men whose calling was to relieve suffering, cure disease and prolong life should have been satisfied to grope so long in darkness is indeed wonderful. Age after age the process has gone on, one generation has followed another in the abyss of mental delusion, and never yet has there been found a mind among all the myriads of physicians which could break through the trammels of venerable ignorance in order to strike out a new path towards scientific and rational medicine as it has been developed by the labors of physicians in the West.

Superstitious and idolatrous practices also pervade the whole system of Chinese medicine and the expulsion of the destructive spirits of disease. The means of guarding the sick against evil influences, the choice of physicians &c. &c., constitute a chapter of melancholy history, demonstrating the degradation of our race and the miseries of mind and body which they suffer when deprived of the enlightening and comforting influences of religious and scientific truth. For an account of the extent to which idolatry and superstition enter into the practice of medicine and expel from its domain the benefits of reason, common sense, and experience, the reader is referred to the articles by Dr. Dudgeon of Peking on "Chi-

nese Arts of Healing" in the second volume of the *Chinese Recorder*.

In view of the difficulties which Chinese physicians have to encounter from the ignorance, error and superstition which antiquity have bequeathed to them, it is not to be expected that they would possess any great amount of knowledge derived from experience, and if they have any valuable medicines as yet undiscovered by European physicians, it remains for the latter to search for them, and having found them to determine their virtues and uses. It is not intended to assert that all Chinese practice is absolutely useless. In spite of all their false theories and absurd notions, experience has taught them that cathartics, diuretics, diaphoretics, &c., are useful in the cure of many disorders.

There is, nevertheless, great danger in committing the care of a sick man to those who are ignorant both of the nature of disease and of the virtues of medicines. They may give the wrong medicine, or give it at the wrong time, or omit giving it at the right time. All these dangers are inseparable from the ignorance and false notions which, among the Chinese, supersede medical science. It is manifest therefore that it will be a great boon to suffering humanity to give to them the knowledge we possess of scientific and rational medicine. This is being done by the missionary hospitals in the different ports, which are mostly supported by resident foreigners.

The establishment of native hospitals in Hongkong and Canton on the European model as to building and administration is a sign of the times. That Western practice will sooner or later be admitted into these hospitals is just as sure as that the iron horse will help to work out the destiny of the Empire. It is greatly to be regretted that the control reserved by the Colonial Government over the hospital in Hongkong has not been made use of to have a department under a foreign physician, or a competent native. A sugges-

tion to this effect from H. E. Sir Richard Graves MacDonnell, accompanying the donation of \$115,000, would, no doubt, have been adopted by the native trustees.

In this paper no reference has been made to surgery, because it has no existence in China. The simplest appliances in this department are unknown. In the surgical remedies which Western science and skill have perfected, the Chinese have a boon offered to them which they admit to be without any rival, at least in modern times.

It will not be an inappropriate conclusion to this article to name a few of the most important medicines which are constantly

used by Western physicians, but are unknown to the Chinese, or have been so until recently—viz.: Sulphate of Quinine, Iodine, Iodide of Potassium and all other compounds of Potash except Nitre, Carbonates of Soda and all compounds of Sodium except common Salt and Glauber's Salts, Magnesia and its compounds, Tartar Emetic and compounds of Antimony, Ammonia and all its compounds, the Salts of Zinc, Acids, mineral and vegetable except vinegar, Lunar Caustic, Oil of Turpentine, Chloroform, Ethers, Morphine, Santonin, Tannin and all the vegetable alkaloids, Cod Liver Oil, &c., &c.

CHINESE PHILOLOGY.

I. CHRONOLOGY.

In the study of language opportunity is afforded for testing the conjectures of chronologists and the critics of ancient history. Nothing is more important for explaining Chinese philology and Chinese ancient history than to interfere as little as possible with the chronology as settled in the Han dynasty at the revival of learning. Suppose that we bring the Chinese into their country at a very recent period, as at fifteen hundred years before Christ. Such a hypothesis gives us the pleasure of denying the value of a mass of Chinese traditions of the days of yore, and we administer a flagellation to the pride of the Celestials. But in so doing we involve ourselves in extreme difficulty. The history of China proceeded contemporaneously with that of Babylon, Persia and India. The light of truth and the darkness of error were communicated from one to the other through intermediate lands. If we found in ancient China the opinions, scientific, moral, religious, or superstitious, which existed in those countries before B.C. 1500,

and not those which existed after that time, a certain standard of chronology would be obtained. But do we find this? Those who think history shorter than tradition allows should shorten history's course in South-western Asia and Egypt as well as in China. For my own part, I prefer a long chronology in both. The Chinese tradition regarding the period of the introduction of writing is more accordant with the needs of science than any crude speculations formed by those who, without ripe research, ruthlessly cut off five hundred or a thousand years from the early part of Chinese history.*

* There are now two parties of investigators into Chinese antiquities, as we are told by Dr. Eitel in the first number of the *China Review*. The one seeks to modernise the date of everything ancient in China, looks upon its old civilization and religion as self-grown, desiderates no connection with the old Asiatic empires of the Old Testament, and detracts in many ways from the credit hitherto allowed to the ancient Chinese in astronomy, history, literature and the arts. The other party desires to harmonize the safe conclusions of modern geologists and ethnologists with regard to the antiquity of man, both with the historical traditions of Judæa and Babylon, and with those of the Chinese. Which will prevail in