



A  
M E M O I R  
OF  
J A M E S M C C L U R G, M. D.,  
WITH  
EXTRACTS FROM HIS WRITINGS.

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RICHMOND:

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# MEMOIR.

In the year 1608, about twelve months after the settlement of Jamestown, "Walter Russell, Doctor of Medicine," arrived from England, and "offered his professional services" to the good people of his Majesty's colony in Virginia. Then, for the first time, the doctrines of Hippocrates and Galen, Celsus and Servetus, had a representative on the North American continent, and the medicine man of the Indian fled before the high sounding language and elaborate latinity of the great pioneer of the medical profession in the new world.

Dr. Russell was a man of mark,—the intimate friend of Capt. John Smith, and his companion in his voyages. He rendered that discoverer surgical aid when he was accidentally wounded during his exploration of Chesapeake Bay, and Smith commemorated his friendship and gratitude towards our worthy doctor by calling certain islands which he discovered, Russell's Islands, in honour of him.

Dr. Russell, however, was not permitted to hold undisputed possession of the dignities and emoluments of this large field for any length of time. Capt. Smith soon alludes to a certain Anthony Bagnall, surgeon, who accompanied him on a voyage to Nansemond (now Norfolk), in which place Mr. Bagnall's name and descendants are to be found at the present time.

Both medicine and surgery, then, obtained their first foothold in this continent in Virginia, for the occurrences we are narrating transpired twelve years before the landing of the Puritans at Plymouth.

In the year 1611, it appears that the infant colony rejoiced in the presence of a third physician, Dr. Bohun, who, disgusted probably at finding the field overstocked, as many others have been since his day, took passage with Lord Delaware, and sailed to the West Indies.

From that time to the present, the honours of the medical profession



have been eagerly sought by Virginians, and the flower of the youth of our State have devoted themselves to its study.

When we contemplate this fact, that the study of medicine has ever been the favourite pursuit of Virginians, does it not seem extraordinary that they have contributed so little to its literature? When we look at the general literature of America, we have no reason to blush at the character of the contributions of our compatriots to it. The magnificent state papers of Washington, Jefferson, and Madison, the splendid declamations of Henry, the legal opinions of Marshall, are enduring monuments of the literary capacities of their authors. These men, with Lee, Wirt, and a hundred others, have proven that Virginians are equal to any literary task which they undertake. And yet, when we come to that science which they have cherished above all others, a science which admits of so much experiment and theory, which demands, too, that its humblest votary should contribute somewhat, from his personal observation, to its stores, we cannot find the names of five Virginians, from Dr. Russell, the ancient fore-runner of the now almost innumerable horde, who have left behind them any worthy memorial of their allegiance to their profession.

It is the object of this paper to revive the memory of one Virginian, who did justice to himself, and added lustre to his profession in times gone by; who proved what the Virginia school of medicine *might* have done, and whose bright example may now, after the lapse of eighty years, shame us in our lethargy, and arouse in us a sense of our obligations to our science and ourselves.

JAMES MCCLURG was born in the county of Elizabeth City, in the year 1746. His father, Dr. Walter McClurg, a gentleman of wealth, and a prominent man in his profession, held the first medical appointment, probably, which was made by the State in its independent capacity, for the old records inform us that in the years 1777-8 he was "physician to the Hampton Small-pox Hospital." His son had all the advantages of a complete and thorough education of that day. At the college of William and Mary, he acquired the reputation of an accomplished scholar, and was especially noted for his classical learning.

When the subject of our memoir was seventeen years old, his father sent him to England, in company with his sister, with the hope that his feeble constitution might be strengthened by the sea voyage, and his mind improved by foreign travel. After returning to this country, and graduating at Williamsburg, he embraced the study of medicine,

and a short time afterwards he became a student of medicine at Edinburgh, and remained there for several years. He early assumed a high position in the estimation of the professors of that celebrated institution, and obtained the friendship of Cullen, Black, and other eminent men with whom he associated at that time.

Dr. McClurg obtained his degree in 1770. His inaugural thesis, "*De calore*," was regarded as a profound and original dissertation. It is much to be regretted that this production was never presented to the public, for the suggestions in it were thought to have originated some of the opinions which were afterwards demonstrated by the founders of the French school in chemistry.

After concluding his studies at Edinburgh, Dr. McClurg went to Paris, and after spending some time in making observations in that great medical centre, he returned to Great Britain, and became a resident of London. Here he diligently prosecuted the study of his profession, and soon published a part of the results of his reflections and experiments in his "*Essay on the Bile*, London; 1772." This work gained great reputation for its author, both as a man of general accomplishment, for its style is charming and elegant, and as a physician. A copy of it is now before us, and before concluding this paper we intend to notice it in detail, for on its merits the posthumous fame of the subject of our memoir, principally depends.

In 1773, Dr. McClurg returned to his native country, although he was strongly urged to remain in England by many distinguished men. He established himself at Williamsburg, the seat of the colonial government. Although he was surrounded by men of eminence in medicine, and had among other competitors the celebrated Dr. Arthur Lee, brother of Richard Henry Lee, and afterwards ambassador to France, Dr. McClurg soon won his way to the head of the profession, and held this honourable station for a period of fifty years.

When the seat of government was removed to Richmond in 1783, Dr. McClurg became a resident of that city, and died there in July, 1823, at the advanced age of seventy-seven years.

Dr. McClurg was especially distinguished over the men of his time by the admirable completeness of his education, both general and professional. He was master of various languages; his course of study was long and patiently pursued, with all the advantages to be derived from an attendance on the great schools of Scotland, England and France, and from intimate personal relations with many of the learned



men of Europe. His own mind, bold and original in its habits of thought, was always inclined to discard the trammels of the schools. His profound views of the philosophy of his art, his close attention to the minutiae of his profession, and his great practical sense combined to endow him with all the attributes of a great physician. Although he was a perfect anatomist, and familiar with the art of surgery, he early withdrew himself from the practice of that branch of his profession, and for thirty years of his life he was almost entirely employed as a consulting physician, for which office his varied learning and admirable sagacity peculiarly fitted him.

Although he always declined the practice of surgery, yet he was well aware of the opportunities which operations afford for display and popular applause. He knew that men as uncultivated in intellect as butchers had placed themselves before the scientific student and patient investigator of disease, by a few brilliant and successful strokes of the knife, and obtained honours and emoluments. Hence, he was accustomed to advise his nephew, the late Dr. James Drew McCaw, while prosecuting his studies in Edinburgh, to turn his attention to surgery. Some of the letters which he addressed to his nephew at this time give us an insight into the condition of the profession of that day, and as they also contain the opinions of this eminent man on some important points connected with the study of medicine, we shall make some extracts from them.

In a letter to his sister, dated July 24th, 1778, he advises her to apprentice her son to a surgeon, and says:

“I hope he will not suffer himself to be debauched by the young company he must necessarily fall into. But he will have occasion for all his prudence, as more licentious youths are hardly to be found anywhere than I remember to have seen in Edinburgh. Mr. Wood was a principal surgeon there in my time—a Mr. Bell has since acquired reputation. I still think that if James has not an aversion to it, surgery ought to be the first object of his attention, and Monro's class of Anatomy the first class he should attend—he will find his success in that line much more sure and certain than in physic. I expect to hear from you and James when you get there, and I will either give him my advice or recommend him to that of some of my acquaintance there.”

He writes again in 1790, on the same subject, and exercises the peculiar privilege of his profession, that of grumbling at his calling. He complains of the irregularity with which his dues are collected.

We are sure that there are many physicians of our own day who must plead guilty to this same carelessness in the management of their private affairs, which has been such a prolific source of evil both to individuals and to the profession :

“ James is at an age when a right or wrong direction of his conduct must very much influence the success of his future life. If he discovers a sufficient degree of prudence now, he can hardly want it hereafter. I observe that his affection for his native soil attracts him strongly to Virginia. This country has not, since the revolution, been favourable to his profession. It may however grow better, if by a good government and tranquility the people are allowed to emerge from the distresses occasioned first by their extravagance and then by the war. With respect to myself, I can assure you that the profits of my profession do not support my family, and that I must, if I had no other dependence, live very indifferently. This however is partly owing to my not uniting the apothecary's and the surgeon's business with the physician's, as is common in this country : and to my not being an adept in another necessary qualification of a doctor, viz., *dunning*. But I see many of those who are continually engaged in common practice making little progress in the acquisition of fortune, and often, instead of getting forward, involved in debts and difficulties. It is easier, perhaps, to succeed to a certain degree, as a surgeon and apothecary, in this country, than any other. But great economy and circumspection, and a long life, are necessary commonly to make anything like a fortune by it. If James should come here, I cannot think that a graduation will be either necessary or advantageous to him ; for it does not certainly give any preference in this country, or weigh anything in the opinion of the people. A strong recommendation from his master, Mr. Bell, I believe would have more influence. If he should get employment in England, it can only be as a surgeon and apothecary, where his diploma would be of no service : and if after some years practice, he should find it useful to take a degree, it will be always in his power.”

Another letter, which we insert in full, affords us a very good idea of the prospects of the medical man of that day :

“ RICHMOND, April 15, 1792.

DEAR JAMES,

The gentleman who brings this, Mr. Watkins, is about to pursue the course of study which you are just quitting ; and may be obliged to you for such information and assistance as are commonly useful to a stranger. He comes from the most remote part of this country, Kentucky, where a few years ago there was not a single white inhabitant, yet has it already grown into a separate and very respectable State. You



see what a growing field there is here for industry in every business and profession.

It is possible that you may have quitted Edinburgh before this reaches you, as your letters suggested that last winter would be the last of your medicinal studies. You will I hope come furnished with some of the most necessary medicines, in a small assortment, together with the instruments used in most common operations of surgery, that you may immediately begin your course of practice. For nothing is more pernicious to a young man than want of employment, and in your profession knowledge commonly increases with every step in practice.

You will see when you arrive where it will suit you to settle. Norfolk is a very growing place, but it seems to be under the almost despotic influence of ———. Hampton is worse than it used to be ; affords a sufficient opening in your line, but hardly worth the gaining, except as a step to something better. In this town the faculty are crowded so as almost to starve each other !

I wish you the best success, which I dare say you may ensure by prudent conduct,

And am, dear James,

Your affectionate,

JAMES McCLURG."

The plethoric condition of the faculty of Richmond in the year 1792, which is above alluded to, seems to have become a chronic disease, which a period of more than sixty years has failed to remedy. We are sure that if our old worthy could rise from his grave and count the hundred or more practitioners of medicine in this city, he would not think that matters had improved much since his time, and would gladly return to his moss covered tomb in the church-yard of St. John's, contented that his day of turmoil and strife was over.

In the long line of distinguished physicians which Virginia has produced, Dr. McClurg deservedly holds the highest place. He was an eminently fortunate man. Nature had endowed him with great talents, and placed him in the most favourable circumstances for their development. His faculties were carefully trained and cultivated from the commencement. He was a laborious student, he had the advantage of associating with the best men of his age, a life of nearly fourscore years was vouchsafed to him, and he became not only an accomplished scholar, but a profound and original thinker. He was no second hand, borrowing man. He knew what his cotemporaries and predecessors had written and said, but he stood on his own basis and thought for himself. The physiological theories which he suggested have lately



been promulgated as among the most brilliant discoveries of the modern French experimentalists. His views on chemistry were far in advance of the doctrines which prevailed during his life time.

He shone in the world, too. He was the leader of that brilliant society composed of such men as Marshall, Attorney-General Randolph, Bushrod Washington, and Wickham, his illustrious son-in-law, the traditions of which have come down to us. Although belonging to a school in politics not a favourite with the people; he was elected by them a member of the convention which drafted the Constitution of the United States.

Altogether he was a man far above the common stamp, and worthy of the high position we have unhesitatingly claimed for him. He furnishes us with a noble example of great abilities well directed, and of a long life well employed. How can our time be better spent than in studying the lives of men who, like McClurg, have adorned our profession in Virginia, and how should their bright example stimulate us to shake off the lethargy which appears to have crept into our ranks in the last half century, and to emulate their virtues.

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*Experiments upon the Human Bile, and Reflections on the Biliary Secretion, with an Introductory Essay.* By JAMES MCCLURG, M. D. A. D. 1772.

“*Jussit quod splendida Bilis.*”—HOR.

C'est une erreur de croire, q'une experience aveugle, et une habitude mechainque, tiennent lieu de principes surs, et de maximes fondees sur un solide raisonnement—

*Traduct. d'un discours sur la commerce, par M. le Marquis BECCARIA.*

The experiments which we have already alluded to in the memoir of Dr. McClurg, with the accompanying introductory, are worthy of a much more elaborate notice than we are now able to give them. We will, however, endeavour to present to our readers as far as space will permit, such extracts as will enable them to comprehend and enjoy the original thought and elegant style of the work.

This essay is divided into two parts. The first being an argument on the necessity of *Reasoning in Medicine*. The second being the subject proper; i. e., Various experiments on the human bile and theoretical and practical deductions drawn from these experiments. Our author opens his subject as follows.

There is no art, unless this term can be applied to religion, which seems to require in its professors such a perfect harmony of opinion, as the art of medicine. For there is none in which error is of so much consequence, or where a fluctuation of the mind between opposite sentiments is attended with such anxious distress. Yet medicine has its schisms; and the sages of our art, while they appear devoted to Truth, forget her peculiar caprice: that, though she loves to be pursued with ardour, she must still be addressed with indifference.

The keenest shafts of ridicule have frequently been levelled at this trait in the medical character. Our singular gravity and solemnity placed us, as it were, in opposition to the free, the gay, and the witty: and they eagerly seized a circumstance, which seemed to reduce this extraordinary figure to the common size; and to show, under a face of great wisdom, much ignorance and uncertainty.

But in reply to these sneers we may answer, "That our science is progressive and subject to perpetual change, and that we may and must differ from our venerable ancestors. In truth, physicians notwithstanding some external differences, which would deceive perhaps an unexperienced Houyhnhnm, are yet no better than mere Yahoos;" or as the old proverb has vulgarized it, that "doctors will differ"—(a proposition which we do not think will be disputed by any one at this time). Our author more elegantly expresses it, "To associate is not more a principle than to separate." It is not attraction alone which governs the material world; the laws of repulsion have also their influence, and it looks as if they had their analogous principles in the moral system.

But these internal factions, which range us under the banners of so many leaders, are equally opposite to a set of men who will acknowledge the authority of neither. The sticklers for different systems, however averse to each other, unite like the domestic parties of restless Britons against a common enemy. It is hard to say when this quarrel began between empirics and dogmatists, or when it will end. It seems to be as ancient as the origin of reasoning in physic, which could not be long after the beginning of observation itself; nor will it cease, most likely, until our philosophy has acquired perfection; an æra still more remote.

The writer thus proceeds to show that the profession is divided into two parties. The theorists or dogmatists, and the empiric or practical man, but that in truth they should act together. "Every step of experience approaches towards system; since, by discovering the natural



relation of things, it prepares us for establishing principles; and theory, or the application of these principles in explaining the phenomena around us, is the favourite process of the human mind."

We notice in our own day precisely these same distinctions. On the one hand we have the *theorist*, the philosopher,—the man of the schools and the closet. On the other, the *practical man*, who deals in facts, who does not theorize over his patient, but grapples with the disease. See our theorist of modern times, he probably has just arrived from Paris, is apt to wear a moustache, and uses new terms and French instruments. He is familiar with all the authorities of his own school, and when asked for a remedy, gives you a theory. His patient has a scald head, instead of ordering a tar cap, he tells him the disease is a vegetable parasite. Is it a cancer? He calls for his microscope. Behold our practical man, who throws his saddle bags armed with a half dozen vials (the remainder having been broken some time before), on his trusty horse and goes his daily round of duty, relieving the sufferer and giving hope to the desponding. Talk to him of philosophy, he wants a prescription; tell him of parasites, he prefers a pill. Microscopes are humbugs, and he swears all the day long by calomel and quinine.

But, says our old author, "This is all wrong; for the danger to be feared from these various theories is surely imaginary. If they inflict a wound, they bring along with them its remedy."

—————Qua cuspide vulnus  
Sensit, et hac ipsâ cuspide sensit opem.

While every theorist feels a warm affection for the child of his own fancy, he pursues with severest scrutiny the schemes of every rival theorist, and a succeeding dogmatist lops with as little tenderness the luxuriant growth of his over-heated imagination.

And accordingly we observe, that as the rise and struggle of parties denote firmness and health in our excellent political constitution, so the perpetual growth and contention of systems is a mark of vigour in the state of medical knowledge. When Europe was sunk in ignorance, and every sort of improvement languished, Galen tyrannized for ages in the schools of physic. The first dawning of the rays of science

—————Ubi pulsam Hyemem sol aureus egit  
Sub terras, cœlumque æstivâ luce reclusit.

seemed to restore some activity to the torpid minds of men, and disclosed the buds of another system.

This prolific birth as well as transitory existence of systems are evidently connected with the progress of experiment and observation. They remind us of the ancient fable of Saturn and his offspring, while they appear to devour the theories to which they give origin. "But this should prevent us from being wedded to any system; yet, we may certainly treat it as a mistress; embrace it with ardour at present and discard it whenever we are disgusted with its defects, or attracted with the superior qualities of another." The quarrel between the empirics and dogmatists is unnatural. "As well might the senses quarrel with the intellect, and each pretend to exercise their functions separately. Every one sees that they are useful only when they are combined, and that their excellency consists in their aiding and correcting each other."

The number of absurd theories should not, therefore, inspire us with an antipathy to the term: nor must a panic terror of them banish physicians from the sacred temple of philosophy. To be hurt with the imperfect, and puerile commencements of reasoning in physic, and to relinquish the hopes of a rational theory, is to be offended at the childish prattle of infancy, and to expect nothing better from a maturer age. That Being: who formed the mind of man peculiarly capable of improvement, and though he fixed the limits of existence, and of the acquisition of knowledge in the individual, appointed no such boundaries in the species: has implanted in our breasts, together with curiosity, a fondness of system: and it is justified by the relations of things. Experience, while it discovers these relations, gives occasion to the exercise and display of that passion. If, therefore, we are determined to reject all system in medicine, let us oppose every obstacle to the natural progress of knowledge. We may begin with rejecting those sciences, anatomy, chymistry, and every branch of physics, which delude us continually with the hopes of penetrating into the secrets of the æconomy. Impenetrable dullness should henceforth be as necessary an appendage to the profession, as inflexible gravity. Genius must quit, in despair, a walk so little accommodated to his exertions: and the art, considered as a mere species of traffic, must fall into the hands of the stupid, and sordid part of mankind.

Let the sons of dullness, and indolence: or if there should be found a physician of extensive practice, with a naturally barren, and little-improved understanding, let him deny the use of theory. We believe, most sincerely, that he is ignorant of its proper use: and when he finds that all the profits of medicine can be reaped without such a troublesome instrument, he may really think it unnecessary,

*Gessit enim Nummum in loculos demittere, posthuc securus.*——

The author goes on to discuss the propriety of the subdivisions in the science between medicine and surgery, and thinks that however much they may be separated in practice; in their study, they should be kept together. "For instance, in the art of war, a great personal dexterity in the management of arms, was common enough; but an



extensive system of operations required an acquaintance with principles which mere habits could never teach."

The reader, I hope, will not find anything whimsical in this comparison of arts, which have equally the appellation of murderous; nor be led to fancy that a dogmatic and an empiric differ like a Mareschal Turenne and a savage warrior; chiefly because the former pursues more scientifically his destructive schemes.\*

The next step in this essay is a discussion as to whether the laws of the material system are governed by an immaterial principle or soul, or under the control of a material or nervous energy, an integral portion of the body. He says that though we discover marks of intelligence in every work of nature, yet their supreme author directs

\* The comparison between the arts of war and medicine seems to have been a favorite one with the profession of that day. Dr. J. Langborne (a cotemporary of Dr. McClurg) in a letter to Miss Hannah More carries out the idea so ludicrously and ingeniously, that we cannot refrain from giving our readers his description of what may emphatically be called an *Intestine War*. He writes in 1776:

"I have been totally depressed, sunk down, and buried beneath a complication of rheumatic, scorbutic, nervous, and bilious complaints. These rebellious powers, like the Americans on their continent, carried every thing before them in a very *unconstitutional* manner indeed. At last matters came to a crisis. General Bile was appointed commander in-chief, and led the whole forces of Rheumatism Bay, Scurvy Island, and Nervous Province, into the very centre and heart of my dominions, and drew up his army in form of battle. I drew up my whole force against him in the following order:—

"First battalion, a body of Emetic Tartars, under the command of General Ipecacuanha. These fought with uncommon bravery for one whole day and a night, made prodigious havoc of the Biliary forces, and took their General prisoner. A truce was proclaimed for twenty-four hours; when it appearing that a large body of the Biliaries had secreted themselves in the lower parts of the country, I despatched the

"Second Battalion, consisting of foreign troops, chiefly of the provinces of Senna, Tamarind, and Crim Tartary, under the command of Sub-brigadier-general Cathartic.

"These brave soldiers behaved with great courage and gallantry; defeated the Biliaries in fifteen pitched battles, and at last totally drove them out of the country. The above two battles lasted five days and five nights. The engagement was at first so hot that victory was doubtful. It was indeed a dreadful and a bloody combat, and I certainly can never forget it.

"On the sixth day a few of the Nervous regiments were seen straggling; but being pursued by Colonel Cordial with the Jalap light-horse, they threw down their arms. The troops of Scurvy Island concealed themselves in the woods, and other inaccessible places.

"Thus, my dear madam, have I given you a circumstantial account of a most desperate and dangerous contest I maintained for my all. What were the battles of Bunker's Hill and Long Island compared to this?"

the operations of matter by fixed laws, and it is the duty of science to investigate these laws. The Animist point to the *vires medicatrices nature* as the evidence of the influence of this intelligent principle: but—

We certainly observe, that the *vires medicatrices nature* are much more perfect in a *polypus* (whose share of intelligence we may believe is not very considerable,) than they are in a man. Since, while they cure with some difficulty a small wound in the latter, they form, from each of the divided pieces of the other, a complete animal.

The introductory concludes with an apology for the new theories the author is about to propose :

This sort of knowledge is so valuable, that every endeavour to extend it is meritorious. It will shew a laudable inclination, and some degree of judgment in the choice of our road, though the state of our abilities, or opportunities, may deny us the praise of a considerable progress. And even when we fail of producing a clear conviction, it is rare that, in the collision of facts, no sparks are struck out to show a future adventurer his way.

We now approach the second part of our subject, and as it is obviously impossible to present to our readers a full description of the many experiments made on the bile, and the deductions drawn from them, we must content ourselves with offering a brief abstract of the remainder of this admirable work.

After experimenting on the bile with various acids and with heat, and seeing the action of this secretion on muscular fibre, fat, &c., &c., he arrives at the following conclusions: First, that portion of the blood which has advanced so far towards putrefaction as to be unfit for the uses of the system, is brought to the liver and becomes bile, *which is itself ante-putrefactive, and goes into the intestine neutralizing the acids of the gastric bolus and arresting the process of fermentation.*

Is there “no spark struck here which has shown a future adventurer his way?” Let the student of M. Bernard’s *recent discoveries* with regard to the functions of the bile compare his theory with that above stated. He says, “Bile mixed with the gastric juice renders the mass alkaline, &c.—It renders the chyme indestructible and impu-  
trefactive.” M. Bernard substantiates this by immersing two portions of flesh in vials, one containing bile, the other having none of that substance. He finds that the bit of flesh in the vial with the bile remains after three months pure and untainted. The experiments XXXVI., VII. and VIII. of Dr. McClurg are almost precisely similar.



and are followed with the same result. "By precipitation," says M. Bernard, "bile has moreover the effect of arresting every kind of fermentation." Dr. McClurg says, (p. 138,) we may deduce the fact from these experiments "that the progressive fermentation which has taken place in our fluids from their first change in the stomach, is regulated and kept from arriving at its last term by the colouring matter of the bile."

Again, proposition second of Dr. McClurg's is in his own words: "From the milk we obtain a matter analogous to the *sugar of vegetables*, and that *somewhat of the same kind is contained in the bile* seems evident from its sweet taste," &c., &c. "We may suppose that it is evolved and rendered more evident by the *animal process of the milk and of the bile in some such manner as it is evolved in the farinaceous seeds by the vegetable process attending their germination.*"

Here is "a spark" which has blazed out after eighty years into a splendid discovery. In the Archives de Médecine of November 1848, M. Bernard announced to the world his *brilliant discovery* that sugar which was so generally found in the vegetable kingdom also existed in the animal. "As vegetables do not find it already formed for them in the earth, but manufacture it for themselves, so he has proved experimentally its production as one of the habitual physiological actions of the liver."\*

Our old father then eighty years ago declared that the liver secreted sugar; and arrived at the same conclusion by a process of pure reasoning, that the justly celebrated Bernard has but lately done by a beautiful and elaborate method of experiments.

"Multa renascentur quæ jam cecidere; cadentque,  
Quæ nunc sunt in honore."——Hor.

The theory being acknowledged then that bile is formed of blood in a state of putrefaction too far advanced to be of any use to the system, it is easy to account for the prevalence of diseases of the liver in warm climates where the process of decay is hastened by the intensity of the heat, the effects of malaria, &c., &c., or in the language of the author:

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If the hypothesis is well founded, we must observe, that whatever accelerates the septic animal process, has a tendency to increase the biliary secretion; since it favours that change of the blood which fits it for becoming bile. And is it not in this light that we are to view the large secretion of bile, which seems to be always the consequence of a continuance

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\* Donaldson on Bernard. Am. Jour. Med. Sciences, July 1851.

of hot weather; and which shows itself, more remarkably, in the intermittent and remittent fevers of the warm climates, arising from putrid miasmata? For, that this symptom is not so much the effect of the intermittent paroxysm, as of a certain state of the fluids in the hot season, appears from an observation of Mr. Cleghorn's: that when the intermittents of the summer continued until the cold weather set in, they lost their malignity and contagion, and were no longer attended by the excessive redundancy of bile.

But we frequently see vast quantities of bile discharged into the intestines, without producing either fever or dysentery. And this is especially the case in the *cholera morbus*; which shews itself sometimes in this climate about the autumn, and in hotter countries before this period, during the course of the summer; and appears to be the true and genuine effect of heat. The disease consists in a more abundant, and probably a more acrid secretion of the bile; and it is to be explained from the known effect of a continuance of hot weather, in favouring the spontaneous degeneracy of our fluids, and in accelerating that septic animal process, by which we imagine the blood is converted into bile.

The unwholesome exhalations arising from marshes, the effluvia of stagnant pools, and the noxious vapours from badly ventilated ships, houses and cities, all are produced to show that any cause which tends to hasten the degeneracy of the fluids and to urge on the septic process, will increase the secretion of the liver. The effluvia from prisoners confined in close jails produce jail fever; the miasmatic poisons of the West Indies generate yellow fever, &c., &c.

The remedies applicable to all of these diseases then are found to be those which add tone to the general system, assist nature in throwing off this enlarged secretion and check the causes of its increased production. Hence the propriety of free purgation and the use of all the tonics, especially the Peruvian bark. Hence we transport our patients to a climate free from these noxious agents. Our author cites Dr. Lind as authority to show the value of keeping about the person in these climates camphor and other volatile substances as a precautionary measure. "According to Sir John Pringle, camphor is a powerful antiseptic, and we can scarcely conceive a more rational method of obviating the effect of these putrid vapors than by surrounding the body with an antiseptic atmosphere." Hence we see the use of fumigations of tar, gunpowder and other depuratories.

Our author looks on the increased secretion of bile not as a disease, but as an effort of nature to rid the system of this septic degeneracy, and his experiments show that this process is a double one; first, by the direct evacuation of this evil element, and secondly, because the bile itself being an antiseptic prevents the perpetuation of this putrefactive tendency. His experiments prove that the bile after being



thrown into the intestines meets with the contents of the stomach, and is coagulated by their acid portions. The precipitated particles of the bile being taken off with the fæces, the colouring and antiseptic ingredients are absorbed, and thus check the continuance of the animal septic process. As we have before said, Dr. McClurg in these theories stands side by side with M. Bernard.

And this gives us another view of the final cause of that larger secretion of bile, which is the constant effect of a long continued heat. We considered it, before, as corresponding with the more rapid progress of the circulating fluids in their septic degeneracy. But it is agreeable to the wisdom of nature, that she should, by the same contrivance, separate from the mass a matter which was growing pernicious, and prepare one that shall be useful. And, accordingly, she has taken the greatest pains to make the quantity of acid in the stomach, at this period, bear a proportion to the redundancy of bile; that so the operation may be completed. She covers the earth with a quantity of acid, or acescent fruits, as tempting to the eye as they are delicious to the palate. She diminishes our appetite of hunger, while she increases that of thirst; and thus not contented with alluring us by pleasure, she seems willing to determine our choice of food by necessity. At the same time she diffuses over us an indolence and inactivity, that while they make a more substantial aliment unnecessary, deprive us of the inclination to seek it. Without the artificial distinctions of society, neither bread nor meat could be obtained, except by the labour of the individual. But the fruits, in such climates and seasons, present themselves spontaneously.

Nullis hominum coegentibus ipse

Sponte sua veniunt

Lastly, to elaborate still farther his theory that the secretion of bile is increased by anything which urges on the fluids more rapidly to the putrefactive stage; he cites the fact that amongst the inhabitants of warm climates there is a greater irritability of the nervous system, a quicker circulation, and an excitability of temperament, which marks the difference between them and the colder blooded Englishman or German.

The bilious constitution seems not to be natural to this climate, where the temper of the people is as distant from the torpid strength of the inhabitants of the north, as from the too delicate and sensile habit of the southern nations. Their moderate irritability, joined with a sufficient share of vigour, is connected with that state of the powers of circulation, in which red blood seems to be formed faster than it degenerates. Hence their full and sanguine habit; so that an Englishman may generally be distinguished, among the southern people, by the *purpureum lumen* which shines upon his countenance. Yet we frequently see this sanguine *plethora* exchanged for a bilious one, in consequence of an alteration which the constitution suffers from a warm climate.

After giving a theory upon the formation of gall stones, which he

attributes to the coagulation of bile by the acids of the stomach : which precipitation not being taken off with sufficient rapidity by the intestines, gradually concretes, and may become impacted in the ducts of the liver : and alluding to the remedy of Van Swieten for the cure of biliary calculi by turning the patient out to graze with the cattle, which he thinks if it did good at all, only acted by producing purgation which swept away the concretion. Dr. McClurg concludes with some general remarks which are replete with practical sense, and in many points shew how very far his bold original mind had led him beyond the great body of his contemporaries.

Allowing that the ordinary tendency of warm climates is to produce a condition of irritability and nervous prostration, and thus hurry on the fluids to that putrefactive point which renders bilious disorders of all sorts prevalent : he says, " that our ordinary mode of living is not calculated to obviate but rather increase the influence of the causes mentioned. The common use of tea tends to injure the tone of the intestines. The debility which follows demands a stronger stimulant, and hence a foundation is laid for the use of alcoholic drinks. No one doubts that the temporary vigour produced by their use is followed necessarily by a weakness which calls for a repetition of the stimulus."

*The gout, with its doubtful face which regards at the same time the inflammation, and the nervous diseases, frequently interrupts this course by an unwelcome visit. Yet it seems to be a necessary, though painful operation : employed by Nature for supporting, in the best way that we have left her, the vigour of the system. One discovers in it the ancient strength of the northern constitution, struggling with the enfeebling modes of modern life. And, in a little time, it will be lost entirely in that train of more purely nervous disorders, which have lately become so numerous. These obtain different names according to the theoretical notions of the physician, and his patient. They are sometimes called disorders of the stomach, sometimes nervous, and at other times bilious disorders : and generally they have a right to every one of these appellations. For it is impossible that the nervous system should be much injured, and the functions of the alimentary canal remain entire, and unaltered : and such is the sympathy between this canal and the biliary organs, that they will commonly share in the affection. But it is certain, that they flow originally from a disorder in that power, which is the source of all the motions in the machine.*

The medical man of our-day sees how true is the prophecy contained in the above extract. The vast array of nervous diseases which meet us in all forms and under all circumstances are here clearly and graphically portrayed. Inculcating the use of all the prophylactics to prevent this condition of the constitution, the advantages of exercise, of bathing, and of acid diet ; and the avoidance of spirituous drinks and stim-



ulating and heating articles of food; our author thus elegantly moralizes.

Yet I feel, while I am writing, that these remarks will have little practical use. I shall not gain a single convert, even amongst those people whose refined feelings, and cultivated understandings, must make the perfect exercise of their faculties, more delicious than any sensual gratification. Yet the sensualist himself, if he is wise, will be temperate; and preserve that exquisite relish, which a perfect state of the functions communicates to every animal enjoyment. He remembers how poignant was every sensation, while his organs were yet fresh, and unworn; and will be careful not to waste, like a prodigal, that stock of sensibility which might furnish a life of pleasure. Nor can he pretend, without risking an imputation upon his taste, that any composition of the most knowing artist is half so agreeable to the palate, as the fruits which Nature herself prepares.

We end our task by giving our readers the closing paragraphs of this original and learned production. They contain the practical conclusions deduced from the theories we have briefly and imperfectly sketched.

The change induced on the nervous system, productive of weakness and irritability, seems to be the fundamental fault of the constitution in these climates: from which, as a common source, are probably derived the quicker circulation; the more rapid progress of the fluids in their optic degeneracy; the redundancy of bile; the disposition to violent spasmodic disorders, and to fever. The most natural and obvious means of preventing these effects of the heat, is the application of cold to the surfaces of the body. Bathing, that act of equal voluptuousness and religion in the eastern countries; and all the methods of cooling the air by evaporation, which enter into their system of luxury; the inhabitants were led to by Nature, and continue, from an experience of their salutary pleasure. To be in possession of ice and snow during hot weather, requires a little more management and contrivance. But, in some of the southern parts of Europe, the use of these refreshments extends through almost every rank of people. And we are assured by their physicians, that it is not only a very healthful luxury, but even a remedy of considerable importance in the disorders of their hot season. It is surprising, that the inhabitants of our American colonies do not endeavour to procure this enjoyment in their warm summers. They would find an ice in the afternoon, an admirable substitute for those warm liquors, with which they relax still more their enfeebled stomachs; and its expence would certainly be overpaid by its pleasure and utility.

The acids approach the nearest to actual cold in their effects on the œconomy. They produce a sense of coolness, relieve thirst, oppose putrescency, repress the inordinate disposition to motion in the system, and give a degree of astringency, with a gentle irritation to the parts more immediately subjected to their action, the alimentary canal and its appendages. They have been observed to relieve that languor and faintness, which are occasioned by excessive heat, when no benefit resulted from the common stimulating cordials.\* Their peculiar operation upon the bile, which seems to bear the strongest marks of Nature's providential care of the œconomy, has been

\* Lond. Med. Obs., vol. 1., p. 66

already considered.\* And from that view alone we were convinced of the necessity of using them in greater quantity, whenever the body is exposed to the continued influence of great heat. They are then demanded by the appetite, and cordially received by the stomach; for in hot weather, and in a fever, we bear very well a quantity of acid, that would be apt, in other circumstances, to disorder the first passages.

Here we must pause. We are sure we have not done justice to our subject. We have simply attempted with our rude chisel to tear away the mass of time which obscured the fame of this eminent man, and with pious hand to cut more deeply on our memories the name of JAMES McCHURCH.

\* See page 131, &c.

\* The portrait prefixed to this memoir is taken from a bust of Dr. McChurc  
now in possession, and is sketched and lithographed by our friend Dr. A. E. Peters. As  
well as being an able contributor to this Journal with his pen, but adorns its pages  
with the products of his chisel and pencil. His