CHRONIC ENLARGEMENT OF THE KNEE, OF
EIGHT YEARS STANDING, SUCCESSFULLY
TREATED.

By CHARLES SMITH, Esq., Surgeon, High-
worth, Wilts.

IN September, 1827, I was requested to examine the right knee of Miss J. C., ætat. 35. I found it very much swollen, and the integuments inflamed. The enlargement commenced at the insertion of the ligamentum patellæ, and extended several inches above the knee, measuring in length, on the outside of the joint, no less than thirteen inches. In circumference, the knee, including the swelling, was sixteen inches. The patient being a remarkably spare woman, it was not difficult to determine that the swelling contained some fluid within the capsule, which was also indicated by the ham being perfectly free from disease. The patient was very lame, and she suffered great pain, which had continued, more or less, for eight years, at the commencement of which period, the swelling first made its appearance. She had applied to several medical men, had been blistered repeatedly, used various applications, and taken a large quantity of medicine, without benefit. She remembers having struck her knee against a table when a girl, but does not suppose that accident had any connexion with her present suffering.

I communicated with Mr. Wardrop on the case; and, on the suggestion of that gentleman, (after a few days use of cold applications, and an aperient, which reduced the inflammation of the skin,) I applied slips of mercurial plaster on the 20th September, and a bandage; gave her two grains of calomel, and one grain of opium, every night, with 16 drops of vinum colchici with magnesia, in mint-water, three times in the day, and directed that the limb should be kept quiet and elevated. This treatment was continued until Nov. 14th, when it was interrupted by a severe attack of pleurisy, which required active treatment; and, as the mercury had affected her mouth, it was not regularly continued afterwards. A pill only having been given now and then, and the mixture in a similar manner. The plaster was renewed from time to time, as it became slack, until the latter end of January, 1828, when the knee was reduced to the size of the other, measuring only $11\frac{1}{2}$ inches in circumference. She has completely recovered from her lameness, and feels no inconvenience from exercise. Together with the other treatment, I consider pressure to have been of great use in this case, therefore the mode of applying the plaster in such cases ought to be duly considered.

Highworth, Wilts, Aug. 3, 1828.

ON THE EXISTENCE OF VALVES IN THE PUL-
MONARY VEINS.

By Professor MAYER, Bonn.*

We find it stated, in most anatomical works, that the pulmonary veins possess no valves. It is needless to prove this by a host of quotations; two will be sufficient:—Haller, in his *Elementa Physiol.* t. 1, p. 145, says, “sed etiam vena pulmonalis absque valvulis est;” and Meckel, in his *Manual of Human Anatomy*,† observes, that the pulmonary vessels, with few exceptions only, have generally no valves. As an exception, for instance, Kelch’s case is mentioned, who once found a valve before the right pulmonary artery. But this case does not exactly belong here, as the existence of valves in the pulmonary veins is the subject under consideration.

My attention was first directed to the presence of valves in the pulmonary veins, when carefully examining the lungs of an ox, in which animal valves not only exist, but in a considerable number. I examined, at the same time, the lungs of a pig, and found them entirely wanting. In the human lungs, however, they are both large and numerous, and it is a matter of astonishment, that their existence could have been overlooked. There is always a valve, for instance, in the spot where a collateral branch opens, at an acute angle, into the trunk of the pulmonary vein. The valve is apparent in proportion to the acuteness of the angle at which the vein opens; but there are no valves in the pulmonary veins at those spots, where the collateral branches open at a right angle; this is also the case in the whole of the nervous system. In the veins of the extremities, valves are to be found where the collateral branches open at an acute angle, but never where they enter into the main trunk at a right angle. This will account for the valves in the pulmonary veins being less numerous than in the other veins, as the collateral branches open principally at a right angle. This mode of communication is particularly evident in the pig, and in this animal the pulmonary veins have no valves.

* Tiedemann’s Zeitschrift für Physiologie. B. 3. Heft. 1.

† Handbuch der Menschen Anatomie. 3 B. p. 365.

THE FIRE-FROOF MAN.

THE French Medical Journal, *La Clinique*, gives an account of the experiments of M. Martinez, the fire-proof man, as he is called, who is now one of the principal objects of attraction at Paris. M. Martinez is not, like the celebrated Russian salamander, Chamouni, insensible, for a given period, to the effects of heat; on the contrary, he suffers so much exhaustion from his experiments, that he is only able to repeat them once a week. He assumes the title of "Incombustible;" but after the fate of Chamouni, it may reasonably be doubted whether any man can fairly lay claim to the privilege of being fire-proof. The Russian salamander was remarkable for the simplicity and singleness of his character, as well as for that idiosyncrasy in his constitution, which enabled him, for so many years, not merely to brave the effects of fire, but to take delight in an element where other men find destruction. He was above all artifice, and would often entreat his visitors to melt their own lead, or boil their own mercury, that they might be perfectly satisfied of the gratification he derived from drinking those preparations. He would also present his tongue, in the most obliging manner, to all who wished to pour melted lead upon it, and stamp an impression of their seals. His merit, however, was never sufficiently acknowledged, till he was found dead in the oven which he had so often entered to amuse his visitors, by what he called his grand experiment,

"Urit enim fulgore suo qui præggravat
artēs

Infra se positas; extinctus amabitur
idem."

This grand experiment was to enter an oven with a raw leg of mutton, and not to retire from it till the joint was thoroughly baked. Chamouni entered the oven once too often; his ashes were collected, and conveyed to Mojaïsk, his native town, where a neat monument has been erected to his memory, and a well-written Latin inscription commemorates his fate.

M. Martinez, the French salamander, says *La Clinique*, was born at the Havannah; he is 43 years of age, about five feet high, and appears to be of a robust constitution. He has the complexion and features of a Creole;

his nose is flat, and, at present, somewhat disfigured by sores produced by the bursting of a thermometer, which was imprudently carried too near his person, at a late experiment, in order to ascertain the temperature of his body. M. Martinez, in his youth, followed the trade of a baker, and from the age of nine to twelve years, was constantly in the habit of exposing himself to very high degrees of heat. Practice has enabled him to bring to perfection a capacity for supporting heat, which seems to be peculiar to persons engaged in the occupation of baking. Tillet gives an account of three girls, servants to a baker, who would remain in an oven heated to a very high temperature, while they swept it, laid the wood, and set the loaves for baking, taking no other precaution than that of keeping the door open. He has ascertained that they remained fourteen or fifteen minutes in the oven, when it was heated to 270° Fahrenheit, ten minutes at 279°, and fifteen minutes at 364°. Thus they supported a degree of heat 67° above that of boiling water, and 170° above that of the human body. Duhamel, Bankes, Solander, and others, have shown by experiments made upon themselves, that man may support for some time, a temperature exceeding the natural heat by 174°. On Tuesday last, M. Martinez, the fire-proof man, exhibited his experiments before a vast concourse of spectators. To obviate all suspicion, an oven was heated in the middle of one of the grass-plots in the garden of Tivoli. At twenty-two minutes after eight, M. Martinez entered the oven; the thermometer, which was left in it eleven minutes, indicating 338° Fahrenheit. He remained in the oven fourteen minutes; his pulse, which was at 76 when he entered, beat 130 strokes in a minute when he came out.

Second Experiment.—At two minutes before nine, his pulse was at 85; he again entered the oven, and remained seven minutes, the thermometer being at 285° Fahrenheit. The crowd of spectators who rushed forward to see him, when he came out, prevented the exact ascertainment of the state of his pulse, but it was less frequent than at the end of the first experiment.

Third Experiment.—At nine minutes past nine, M. Martinez was placed upon a plank, surrounded with candles, and introduced into the oven, the door of which was then closed. He remained in it three minutes. On coming out his face was of a violet colour, but he hummed a tune with great apparent indifference, and plunged himself into a bath of cold water. Before the immersion, his pulse beat 144 strokes in a minute.

COPY OF A LETTER TO A PHYSICIAN, ON THE
COMPARATIVE POSITIONS OF THE MEDICAL
PROFESSION IN FRANCE AND ENGLAND.

Mountainban, France, May 10, 1828.

MY DEAR DOCTOR,—I hasten to comply with your request, and to furnish you with the proofs and arguments of what I asserted in my last letter, that, (with regard to the medical profession, at least) “they manage these things better in France;” and I hope, before I conclude, to convince you, that I have asserted nothing more than I can fully substantiate. I am truly happy to say, that the long-cherished English notion, that our little island was “Utopia” personified, a perfect “El Dorado,” is fast declining, and one may now quote and comment on the literary productions of our continental neighbours without being, as in the year 1813, classed, for so doing, with “bands of foreign sceptics,” conspiring for the dread purpose of reforming abuses and rectifying errors. The groundless apprehensions of these gentry put one in mind of Croaker, in the play, who magnifies a waiting maid’s love letter into a matter of no less importance than murder and arson. Let us not, however, imitate the “Good-Natured Man,” or attempt to make the fire-engines play upon an imaginary conflagration, resting assured, that whilst on the one part it displays no lack of patriotism to admire what is praiseworthy in the institutions of foreigners, neither does it show any proof of it to administer to and foster the illiberal prejudices of the vulgar.

“Mais revenons à nos moutons.” I conceive the French possess a great advantage over us in having a well-educated class of men to perform the duties of apothecaries exclusively. How superior in knowledge and acquirements are these individuals to the uneducated chemists and druggists of our country! who, without any previous education or examination, are permitted, by the supineness or negligence of our legislature, to undertake the important duties of their station.

Another very remarkable benefit which the pharmacien confers on the profession, and thereby adds greatly to the respectability of it, is by assuming the performance of that portion which degrades it from the footing of a science, and reduces it to the level of a trade. Until our wholesale dealers in the noble art of healing (general practitioners, as they are generally called,) imitate our continental neighbours in this respect, they can never expect to assume that station in society, and amongst men of letters, that the utility and importance of their occupations merit. I hope and trust

it is a libel on the English public to assert, that they are so besotted as to insist upon receiving a “quid pro quo,” in the shape of drugs, and that they are more willing to take medicines which are often unnecessary and frequently prejudicial, than to present a fee for advice relative to the *juvantia et lædientia*, &c. Let it not be asserted, that the union of such heterogeneous compounds as pharmacy and the scientific practice of medicine and surgery, is essential to the remuneration of the practitioner. The inhabitants of this country are not, individually speaking, so wealthy as the same class in England, yet they do not permit so degrading an union, and have no reason (as I believe) to regret the separation.

I have often smiled, but it has been “more in sorrow than in anger,” at the villainous custom which prevails in the United Kingdoms, of condemning the unfortunate disciples of *Æsculapius* to the performance of an apprenticeship for five years to learn so simple a matter (compared with their other studies) as the compounding of drugs; in the great majority of instances nothing else is taught them. Like Spartan helots they remain bound with the iron yoke of an indenture; they tarry with their task-masters (for no other visible purpose) “until their beards be grown,” and ultimately devote two, or at most three, years to the acquirement of the vast circle of medicine, surgery, and the accessory sciences. Can any thing be more perniciously absurd than such a system? so much precious time wasted, absolutely lost, and never to be recovered! To assert that there is no hardship in such a profligate employment of the most valuable portion of the existence of an individual, who, with his utmost exertion, and most diligent application, will find ample employment, is like Mercury, (in *Æschylus*) coolly lecturing Prometheus, whose only grievance is that of being chained to a rock, and having a wedge of eternal adamant driven into his breast. Such a mode of study could only prevail in the 18th century, amongst a “nation boutiquière.” The French are so ignorant as to suppose, that medicine and surgery can only be taught clinically, and that the time we devote to the practice of pharmacy would be far more advantageously spent in acquiring a few of those preliminary branches of knowledge, of which English students are in general ignorant when they visit the medical schools of the metropolis. I need not insist on the advantage of method in the investigation of a profession requiring such extensive acquirements as ours; I know the object of many students is to pass their examinations, and commence practice with as little trouble and expense as possi-

ble. These gentry, like "the stern hero," Marmillo, in the Dispensary,

"Whilst others meanly take whole months to slay,

Dispatch their grateful patients in a day."

For such "*fruges consumere nati*" I do not write, but to those praiseworthy pupils who are as anxious to merit success as they are to obtain it, and who desire to be "generally learned" in their highly honourable and useful profession. I would earnestly impress the advice of the great Stagyrte,

"*Optimé illum veritatem rei perspicere qui à principio res orientes ac nascentes inspexit.*"

It is much to be regretted, that our students are not compelled to submit to some preliminary examination, or to furnish themselves with some literary grade in arts and sciences, before they are permitted to commence their metropolitan studies.

I fear, my dear friend, you will consider me a most determined radical, a cynic, determined to find fault, if I continue to blame, but, "*jacta est alea*," I have commenced, and I am too well satisfied of the candour and liberality of your disposition not to feel assured of a candid and deliberate hearing. I ask no more; if I colour the picture too highly, attribute it to an ardent zeal, which I am sure I feel for the welfare and honour of our common calling.

Let us now, if you please, compare the methods of teaching the profession practised by our Gallic neighbours and ourselves. The Parisian hospital physicians and surgeons, and, I believe, the remark applies with equal justice to Montpellier, Strasbourg, and the other French schools, receive no fees from the students, yet they pay the most undeviating attention to both pupils and patients; they visit the establishments to which they are attached daily, and superintend, personally, the administration of medicines and the application of remedies. Contrast this conduct with the practice pursued by most (I had almost said all) of the London hospital physicians and surgeons, and I think you will agree with me, that walking the hospitals (as it is somewhat ironically called) is no very improper expression. Certes, the walking appears to be held the most essential part of the process. Judging from the effects produced, I am no advocate for this peripatetic mode of acquiring medical knowledge; it might be as rationally taught by the treadmill. This is by no means an overcharged picture, at least it applies to the method pursued when I was a student at St. Bartholomew's Hospital in 1819, at which time the surgeons (I was not a physician's pupil), instead of giving clinical information, repulsed any attempt, even of the pupils,

to ask questions; the senior surgeon was then celebrated for the professional urbanity which he displayed on such occasions; they seemed vastly more fond of the dogmatic than of the Socratic mode of disputation. I was also frequently in the habit of visiting the other London Hospitals, and I must candidly say, they all appeared to pursue the same system.

Will our descendants believe that, in 1820, and (if I am not mistaken, even later,) medicine and surgery were not taught clinically in London by a single professor, unless perhaps Mr. Charles Bell forms (which I believe he does) an honourable exception to this almost incredible fact. Surgery was taught *peripatetically*; and *theoretical*, and, what is still more strange, *soi-disant practical* medicine, was prelected *parsonically*; a sermon was read on a disease, the pupil paid his fee, and received a testimony of having acquired knowledge, which, by such a system, it was impossible he could attain; and his master, (I cannot call him teacher,) the only gainer by the bargain, pocketed his ill-earned profits.

I sincerely hope and trust, that this deplorable swindling system is nearly at an end, and that the time is not far distant, when it will be abolished altogether. Students should insist upon receiving clinical information, (the only rational mode of instruction,) in return for the enormous fees which they give to their self-styled instructors. I was truly gratified to hear that a clinical hospital was to be attached to the medical school of the London University. Its projectors deserve the thanks of the profession; may it be the dawn of a brighter era, the model of many similar institutions.

Whilst on the subject of medical instruction, I would also venture to express a hope, that we shall, ere long, see professional chairs established, for the purpose of prelecting on what is a very important subject, and taught, I believe, only in the German universities; I mean—*methodologia medica*, or the method of pursuing a course of medical and surgical studies. How much time, trouble, and expense, would such a guide save the great mass of students who commence, nay, who finish (I cannot call it complete) their studies, without having acquired the most essential preliminaries, whose knowledge is literally a burden to them—a "*rudis indigestaque moles*"—a chaotic mass, without form, and void. The books which they have read, (from having had no judicious guide to assist them in selecting those likely to be beneficial,) only add to their bewilderment. I must not forget to add, that it is a very important portion of the methodological professor's duty to furnish his class with a brief biblio-

graphical analysis of the best works connected with every branch of their studies.

The advantages of methodical arrangement, in the study of so vast a subject as the noble art of healing, must be self-evident, as Lacomiguière (*Leçons de Philosophie*, t. i. p. 56,) has observed, "Un enfant aidé d'un levier est plus fort qu' Hercule livré à ses propres forces." Were the authority of great names required, I might adduce those of Aristotle, Bacon, Newton, Pascal, Mallebranche, Condillac, and Descartes, who, whether they have denominated the mental levers, they proposed "Nova Organa," or "Methodes," have all insisted on the self-same proposition. The latter author modestly observes, "Si j'ai quelque avantage sur le commun des hommes je la dois à ma methode."

I shall now bring this long, and, I fear, tedious communication to a close, by suggesting a few remarks on the mode of conducting examinations practised by our English schools of medicine, and I have here to object that the same method is pursued as in teaching it. No test, I confidently maintain, can be satisfactory, that is merely oral. Now, I would ask, can the professor ascertain the anatomical knowledge (the fons et origo, the Alpha and Omega of medical science) of a pupil he is examining, unless he has a scalpel in his hand, and a subject before him. Can it be denied, that many students obtain the credit of having been very attentive to their studies, who have positively acquired their anatomical knowledge from plates and books in their chambers, instead of in the dissecting-room? Can this, I ask again, be denied? It cannot; that redoubtable prince, Mendes Pinto himself, would blush to assert the contrary; if such is the case, ought not the system to be "reformed altogether?" So also with medical examinations; the examiner can never be aware, whether the neophyte's knowledge is theoretical or practical, whether derived from fallible books or infallible nature, unless the investigation is carried on at the bed side of the patient. It is as essential that the mode of examination should be strictly clinical, as that the teaching the science should be so. I would also suggest that the examinations should be public, as this would ensure fair play to the student, and be an assurance to the public, that the board of examiners did their duty to the public on the one hand, and to the candidate on the other. It would prevent those reclamations which, in general, do honour to neither party. If the Board are qualified for their highly-important and responsible duties, they can never fear, but ought rather to court publicity to their proceedings; and there cannot be a doubt that it

would give additional importance and value to their testimonials.

In taking leave of you, my dear friend, allow me to presume upon our long intimacy to assert that whilst I have "nothing extenuated," I am not aware of having "set down aught in malice." I may, perhaps, on some occasions have spoken strongly, for I am conscious of having felt warmly whilst treating of the abuses which obstruct the advancement of a profession which I estimate too highly to be indifferent to its welfare; you know that, situated as I am, far removed from the busy scene, and all its petty party turmoils; fast sinking under the effects of an immedicable disease, I can have no other motive in suggesting the few hints I have ventured to throw out, but a desire to contribute my mite towards the improvement of that profession of which I shall never again be any thing but a spectator.

Dr. Johnson has observed, that "the hand which can destroy a palace could not, perhaps, raise a hovel." This is, perhaps, my case; however, wherever I have fancied I discovered an imperfection, I have not hesitated to suggest what appeared to me to be the most adequate remedy. I think it highly probable that you may think with the poet, that for me

Ces sujets sont trop hauts et je manque
de vox.

At all events I have the satisfaction of being able to add, with the same author,

Le dessein en est grand, le succès mal aisé,
Si je m'y perds au moins j'aurai beaucoup
osé.—*La Fontaine Poeme sur le Quinquina.*

Believe me to be,
My dear friend,
&c. &c.,

P. S. You are welcome to publish this letter in *THE LANCET*, if they will "print it."

ON THE INFLUENCE OF THE PNEUMO-GASTRIC NERVES.

Mr. E. WARE observes, that there is nothing more frequently praised than the certainty of the evidence of natural truths. Each writer in his turn thinks his discoveries completely established, and arrays his alleged facts in an apparently resistless phalanx. But almost every one who elicits novelties is, in spite of his confidence, subjected to controversy and contradiction. His facts are denied, his experiments refuted, his conclusions declared inadmissible, and his veracity and philosophical honesty called into question. These reflections were sug-