

J. C. Baer

THREE LECTURES,

PRELIMINARY TO

A COURSE

ON THE

PRINCIPLES AND PRACTICE OF SURGERY,

DELIVERED

On the 4th 8th, and 9th of October, 1849.

BEFORE THE MEDICAL CLASS OF THE UNIVERSITY OF PENNSYLVANIA.

BY

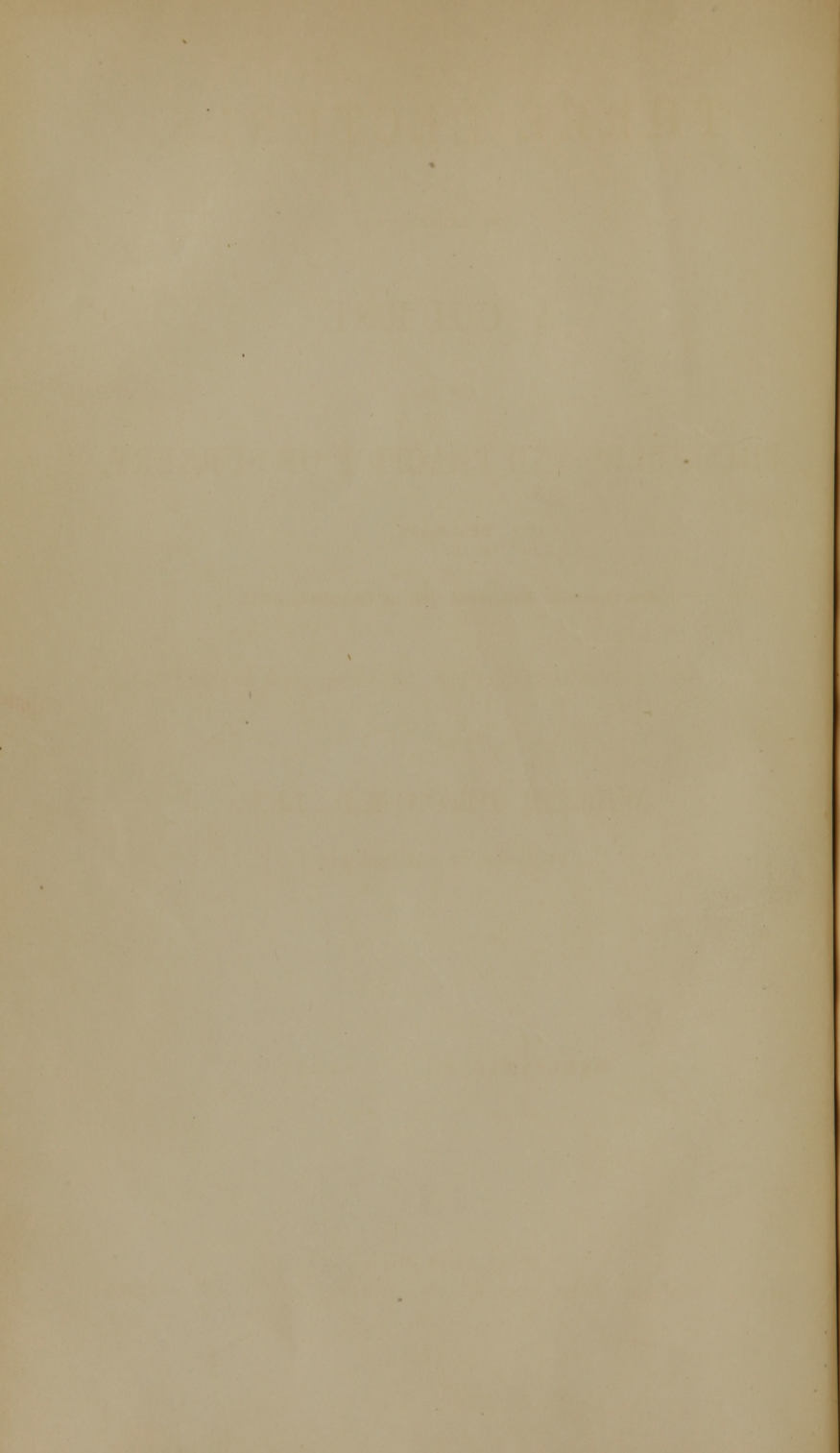
WILLIAM GIBSON, M.D., LL.D.

PROFESSOR OF SURGERY, ETC.

PUBLISHED BY THE CLASS.

PHILADELPHIA:

GRATTAN & M'LEAN, STATIONERS, CORNER OF THIRD AND WALNUT STREETS,
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CORRESPONDENCE.

UNIVERSITY OF PENNSYLVANIA,

DEC. 17, 1849.

PROFESSOR GIBSON:

DEAR SIR,

The Medical Class of the University of Pennsylvania, highly gratified with your able and interesting Introductory Lectures, through the undersigned, their committee, respectfully request copies for publication.

Very respectfully yours,

J. C. ADAMS,
G. H. BLAKER,
R. W. LUNDAY,
J. G. MURPHY,
P. C. WILLIAMS.

GENTLEMEN:

In compliance with the polite and complimentary request of the Medical Class of the University of Pennsylvania, I shall be happy to furnish copies of my Introductories for publication. Please present, as their Committee, my grateful acknowledgments to the Class, and accept for yourselves the assurance of the respect and regard of

Your friend,

W. GIBSON.

MESSRS. J. C. ADAMS, J. H. BLAKER, R. W. LUNDAY,
J. G. MURPHY, P. C. WILLIAMS.

LECTURE I.

GENTLEMEN :—

TWO years ago, I had occasion to spend several months abroad. Upon my return I gave an account, through the medium of introductions, of most of the great men, and medical institutions of England and the Continent of Europe. Some of these were published, whilst others, were laid aside for the purpose of appending to them, at leisure, additional observation and information. I propose to-day, to commence an account of the prominent medical men and schools of Germany, and to continue it in one or more lectures. Part of the present discourse was delivered towards the close of the session of 1848, to a very limited number of pupils, and has never been printed. In an improved form I venture to present it to the notice of the present class ; believing it to be natural to the human mind to wish to know something of the personal habits and appearance of the distinguished men, whose names are familiar to every student, and whose writings are referred to with commendation in almost every lecture, as well as the countries in which they reside. Without further comment, then, I shall commence with Prussia, of which much less is known in this country, than of France or England.

After an agreeable sojourn in Brussels, and various diversified rambles through the most interesting parts of Belgium, I took up the line of march for Prussia, and halted at *Aix la Chapelle*—distant from the Belgian frontier only a few miles. Here, through the kindness of *Dr. Wetzelar*, the most eminent physician of the town, I had ample opportunity to see the works of nature and art, and to examine each in detail. *Aix*, as it is called by way of abbreviation, has for ages been celebrated, you are aware, as one of the favourite bathing places of the Romans, and as the spot where Charlemagne was born and buried. Equally celebrated for its misfortunes and for the honours conferred upon it, it has been besieged and taken, three times nearly destroyed by conflagration, conquered by Napoleon and united to France, separated again after

his downfall and added to Prussia ; and not less remarkable for having been, at different periods, the theatre upon which all the crowned heads of Europe and their talented diplomatic negotiators played conspicuous parts. The town is situated in a hollow, surrounded by lofty hills ; among which there are many beautiful views and pleasant walks and rides—contains spacious squares, wide and extended streets, fronting on which are large, finely proportioned, bright looking stone houses—all indicating the taste and wealth of the inhabitants. As a manufacturing town *Aix* has long been celebrated ; and, at the present time, stands almost unrivalled, for the beauty and excellence of its *black* cloth and cassimeres, and for its *needle* factories. In population it exceeds forty thousand, eighteen thousand of which are employed in manufactures. The public buildings are not numerous, and only two or three deserving especial notice. The *Cathedral* commenced by *Charlemagne*, on the site of an ancient chapel,—whence the name *Aix-la-Chapelle*—was originally a very magnificent and gorgeous edifice ; but, through the dilapidating influence of time, earthquakes, fires, plunder and war, has been so mutilated and changed, during successive ages, as hardly to retain any portion of its pristine grandeur or form. In the centre of the *Cathedral* may be seen the tomb of *Charlemagne*. The regalia and other relics, except the marble chair or throne, which now occupies the gallery near the choir, were removed by *Otho* the third to Vienna, where they still remain. There are numerous other relics, however, of great value, and sculptural and architectural designs of the finest proportions and workmanship, all preserved in the *Treasury* of the Cathedral ; but are only exhibited once in seven years, when pilgrims from many parts of Europe and Asia have attended, sometimes to the number of one hundred and fifty thousand. The *Town Hall* is a large and very ancient building, and on account of the historical associations connected with it, the library and pictures it contains, is well worth a visit. The *Theatre*, also, is a grand and imposing architectural object, and is so arranged as to be adapted to concerts, which take place very regularly, and are often sustained by the talents of the most celebrated German and Italian singers and performers. In no part of the Prussian dominions is gambling carried on to the same extent as in *Aix-la-Chapelle*,—the greater part of the large edifice called the “ *Salle de la Redoute* ” being devoted to the purpose night and day, throughout the whole year. This is the more surprising as the king of Prussia is remarkable for the strictness of his religious and moral principles, and for the energy with which he carries them out. The only reason assigned for his laxity of discipline, in this matter, respecting *Aix*, is, that strangers who resort

in great numbers to the town and there spend large sums of money, would abandon it for other places if public gambling were put a stop to. If this be really the case, it only shows how easily conscience may be reconciled when interest is at stake !

In a medical point of view *Aix* is one of the most attractive towns in Prussia; having been long and deservedly celebrated for the efficacy of its mineral waters and baths. Indeed, the whole town may be looked upon as the superstructure of an immense bath-house; for the water boils and bubbles in every direction, smokes as it runs through the gutters of the streets; and where it collects in the low grounds of the suburbs, and forms ponds and diminutive lakes, sends up clouds of steam sufficient to obscure the atmosphere, and to remind one of the mists of the valley dispersing under the rays of the rising sun. The contents of this vast subterraneous cauldron, probably heated by volcanic fires, find their way to the surface, through numerous outlets. The principal of these is a spring called the *Emperor's well*, which issues so abundantly from a large rock, near the summit of the town, as to supply two or three bath-houses, as well as the *Fontaine Elise*—a magnificent building situated in Frederick William Square—so called in honour of Eliza the Prussian Queen. In the rotunda of this vast building the fountain is placed, and serves as a fashionable drinking resort to the most respectable inhabitants, and to the numerous strangers who visit *Aix* for the internal use of the water and baths. The water of the *Fontaine Elise* is, also, preferred on account of its being hotter and containing a larger quantity of sulphur than any of the other springs—its temperature, by Fahrenheit, being upwards of one hundred and thirty-five degrees, and the sulphurous odour so powerful as to impregnate the clothes and prove very disagreeable by inhalation. The chief ingredients of the different springs consist of animal organic substances, of the sulphate, phosphate, muriate, carbonate of *soda*, of sulphuret of sodium, fluorate of lime, carbonate of lime, silicate oxide, phosphate of soda and lithia, carbonate of strontia and carbonate of magnesia—besides large quantities of super-sulphureted hydrogen, nitrogen and carbonic acid gases. Within a few hundred yards of *Aix-la-Chapelle* stands the small village of *Borcette*; also celebrated for its mineral springs and baths, the composition of which does not differ materially from those of *Aix*. They contain, however, less sulphur, are more palatable, and are hotter, particularly the *Kochbrunnen*, or boiling spring, which is said to exceed one hundred and seventy degrees. There are many comfortable hotels and lodging-houses at *Borcette*, not so fashionable and expensive as those

at *Aix*, but generally occupied by wealthy and respectable people, who prefer retirement to parade and show.

The diseases, for the relief or cure of which the waters of *Aix* and *Borcette* are celebrated, are rheumatism, gout, gravel, dyspepsia, paralysis, chronic catarrh, worms, diseases of the liver, chronic intermittents, diseases of the skin, calculous affections, glandular indurations, catamenial irregularities, hemorrhoids, mercurial diseases, neuralgia, contractions of the limbs from gun-shot injuries, and from diseases of the joints, scorbutic, and a host of other constitutional and local ailments. In hæmoptysis, apoplexy, phthisis pulmonalis, inordinate plethora, both the bath and the internal use of the waters are found to be injurious. For many of the complaints in which *Aix* waters are servicable, *douches* and *vapour baths* answer a better purpose than the common bath and internal use of the springs. The *douche* baths, in particular, are admirably contrived—the water being contained in large leaden cisterns, from which issue leaden tubes, attached to corresponding elastic leather pipes, susceptible of movement in every direction, so that the water may fall, either obliquely or perpendicularly, from the height of twenty or thirty feet, upon the patient, the direction being given to it and its force regulated by a *frotteur*, or rubber, who is diligently employed, at the same time, in communicating manual friction to the affected part. The vapour baths, also, are singularly comfortable and well arranged, and some of them so constructed as to admit of the vapour being applied to the head and body at the same time. Besides the sulphurous waters chalybeate springs are found in abundance at *Aix* and *Borcette*. They are very inferior, however, both in strength and quality to many similar springs in Germany and other parts of Europe.

From *Aix* my steps were turned to the *Rhine*—distant about forty miles—the route by railroad to *Cologne* being selected as the best. *Cologne*, although the largest town on the *Rhine*, celebrated for its wealth and historical associations, and above all for the magnificent *Cathedral*, commenced in 1248, but still unfinished, is equally distinguished for its narrow and filthy streets, and the noisome smells which assail the olfactories so powerfully from every quarter, as to defy the most strenuous exertions of *Jean Marie Farina*,* with all her liquid seas of fragrant distillations, to repress their pestiferous emanations.

“It was my lot,” says an untravelled Englishman, “to enter *Cologne* on a Saturday, and that Saturday Whitsuneve, when every housemaid

* The descendant of the original inventor of Eau de Cologne.

in the place seemed to be at work in the gutters, each driving before her such torrents of foetid mud as seemed to indicate that the operation had not been performed since the last anniversary of the feast. Such a power and variety of bad smells," he continues, "I never encountered. They justified Coleridge's epigram,

"In Coln that town of monks and bones,
And pavements sharp with jagged stones;
Of hags and rags and dirty wenches,
I counted two-and-seventy stenchies,
All well defined and separate stinks," &c.

A peep, therefore, at the house in which *Rubens* was born,* and a bird's eye view of the *Cathedral*, numerous steeples, and prominent public buildings, were sufficient to satisfy my curiosity—especially as there were no medical associations to absorb attention.

Bonn, situated on the left bank of the *Rhine*, twelve miles above *Cologne*, is a small town of inconsiderable pretension in appearance, but interesting on account of its University and Medical School, and the picturesque scenery in its immediate vicinity. The University was founded about thirty years ago, by the king of Prussia. The building is a very large and ancient one, and formerly served as a palace to the *Electors of Cologne*. It contains numerous lecture rooms, a large hospital, a museum of Rhenish antiquities, an academical hall, handsomely decorated, a large and valuable library, and various other apartments for different purposes. Through the kindness of *Dr. Albers*, the Professor of *Materia Medica*, a gentleman distinguished for his urbanity, for his intellectual endowments and the extent of his varied information, as shown by his large and splendid folio on morbid anatomy, and by his work on tumours, I had the opportunity to examine every department of the institution, from the lecture rooms where *Niebuhr* and *Schlegel* held forth, down to the apartments occupied by *Prince Albert* whilst a student. The *Anatomical Theatre and Museum* are contained in a handsome building two stories high, with large rotunda in the centre and extensive wings. It is distant two or three hundred yards from the University, and stands alone in the midst of a beautiful lawn of several acres, surrounded by large and luxuriant chestnuts and elms. *Dr. A. F. J. C. Mayer*, the Professor of Anatomy, is a plain, unostentatious man, cold, seemingly, in temperament, taciturn, with little polish or address, rather small in stature, and his general appearance so delicate as to indicate feeble health. The museum containing upwards of four thousand specimens, has a sombre and even gloomy cast, and a slovenly

* He was born in Cologne, during a short sojourn of his father, who was a native of Antwerp.

air ; which, associated with an impure atmosphere, the result of imperfect ventilation, and of dark, greasy preparations, renders it, upon the whole, a disagreeable object to look upon. Some of the specimens, however, are unique and interesting, particularly a diaphragmatic hernia ; several remarkable skulls, more than an inch thick ; very heavy and almost petrified, one of them weighing three pounds. There are, besides, in the collection, one hundred and thirty-five human crania, eighteen deformed crania and pelvises, a hernia of the stomach and kidneys, absorption of the sternum from pressure of aortic aneurism, ossification of the glands of Pyer, of the gall-bladder, of the cœcum of a child, of the processus vermiformis, in different subjects. The whole *pathological* collection amounts to fourteen hundred specimens ; while the department of *comparative* anatomy, consists of seventy-seven skeletons of mammalia, fifty-eight of birds, sixteen of reptiles, twenty-five of fish, one hundred and sixty-four skulls of animals, forty-six of birds, fifty brains of different animals, the nervous system of fourteen invertebrate animals, the olfactory organs of seventeen animals, the organs of sight in thirty-seven, of hearing in fifty, of taste in twenty-five, in the circulatory system forty-eight, in the respiratory sixty-two, of birds twenty-eight, of reptiles fourteen, of fishes nine, of the digestive organs of mammalia and birds one hundred and twenty, and of the organs of generation, urination and fecundation in mammalia, birds, fishes, and reptiles one hundred and seventy-two. The whole museum is under the care of Professor *Mayer*, who spends the greater part of his time in it, and in the anatomical theatre adjoining. The latter is small, incapable, apparently, of containing more than a hundred pupils, but very neat and admirably arranged. It is sufficiently large, however, to accomodate all the students in attendance, inasmuch as the class, as *Drs. Albers* and *Mayer* informed me, seldom exceeds sixty in number, and is decreasing every year, owing to the profession being overrun throughout Germany, and to the greater attractions of *Berlin*. It is miraculous, under these circumstances, how professors of anatomy, chemistry, and of some other branches keep themselves alive, inasmuch as they seldom, if ever, engage in the practice of their profession, their time being so occupied in the duties of their chairs as to preclude the possibility of attending to other professional matters. On this account, however, they become very learned and efficient in their several departments, and often make discoveries and signalize themselves in various branches of science, not closely connected with their special vocation. *Mayer*, for example, is celebrated as a naturalist, and for his excellent description of the immense extinct animal, the *deinotherium*, discovered by *Kaup*.

The museum of natural history is said to be extensive and especially rich in minerals and fossils, which illustrate the geology of the Rhine, and the volcanic regions in the vicinity of Bonn. With the professor of mineralogy, *Dr. Noegerath*, I became acquainted, through his excellency, the Prussian Ambassador at Washington, and found him extremely well informed on all subjects, very civil and obliging, and held in high estimation, both for his scientific and social qualities. Another distinguished mineralogist—whom I accidentally met in the cars between *Cologne* and *Bonn*—a Mr. *Henninghause*, a gentleman of seventy-eight years of age, who fifty-five years ago travelled extensively through the United States, and was intimate with most of the distinguished families of all our large towns, seemed to take a deep interest in all that related to the country and its institutions, the genius of which he appeared to comprehend better than any European I saw during my sojourn abroad. Although so far advanced in age, he appeared as active and young as a man of sixty, and took great pleasure in pointing out to me every thing of interest in and about *Bonn*. During his stay in America he had passed some days at *Mount Vernon* as the guest of *Washington*, and seemed to have a perfect recollection not only of him and his family, but of every member of his household; being able to recount the names even of the different domestics. Why is it that so many of all the European nations preserve a healthy and robust appearance, even in extreme old age, whilst Americans, in too many instances, fade and become decrepid in mind and body before they have reached three score years? Putting climate out of the question, for in this respect, with few exceptions, we have the advantage, I should say that the difference consists not only in the quantity and quality of the esculent material employed, but in the mode of preparing it for the digestive apparatus. A sturdy wench, just arrived from the *Emerald Isle*, who never cooked any thing in her life but a potato, is placed at once at the head of an American cuisine, and allowed to revel to any extent in experiments upon the stomachs and constitutions of her employers. Quarts of unboiled dish-water coffee and tea are made, under her administration, to wash down loads of unbaked bread, sour buckwheat cakes and Indian dabs, all piping hot, to be commingled in the stomach with salt herring, mackarel, shad, links of saussage, heterogeneously composed of tough gristle, lean muscle and rancid fat. Then follow in a succession of meals, corned beef, half boiled and half mashed turnips, waxy potatoes, loads of cabbage, roast beef burned to a cinder, baked mutton swimming in melted suet, fried chops or cutlets deliciously bathed in empyreumatic oil, oysters smothered in Indian meal and lard

and fried to an interminable degree of crispness—to say nothing of biscuits red hot, or rolls made of flour, white as snow, so white as to be composed almost exclusively of starch, fried bacon and eggs, and a hundred other crudities, which every man from Texas to Maine is expected to bolt, and his stomach to digest. Look at the other side of the picture, and observe how carefully every one on the Continent of Europe and in France avoids grease in every form, how rigidly he scrutinizes every dish to ascertain if it be sufficiently stewed or boiled, how cautiously he abstains from mixing food in large quantities, and confines himself to a beefsteak or mutton chop, “naturelle avec petit pois,” or some other similar dish, how averse he is to pour “hot and rebellious liquors in the blood,” and in place of these and fictitious champagne, to drink in moderation *Asmanshausen, Moselle, Moulin en Vent, Corton, Thorins Vieux, Nuits Superior, Hermitage blanc*, and other mild, unirritating, and *genuine* wines. Again, observe how precise and regular is his system of exercise, first and most important on foot, then on horseback; lastly, and least important, in a carriage. People then differ all over the world in their habits; an Englishman is a huge feeder, lives on the fat of the land, drinks beer, brandied port and sherry wines, takes violent exercise, and dies of apoplexy and aneurism; an American eats rapidly and promiscuously every thing which comes in his way, cooked or uncooked, chews, smokes and spits everlastingly, takes no exercise, dries up and looks as old as the Wandering Jew; a German, a Belgian, a Swiss, a Frenchman, looks before he leaps, touches nothing which interferes much with his pockets, either external or internal, lives sparingly, economically, tastefully, comfortably, lives long and preserves his good looks, and at last when compelled to die, shrugs his shoulders and with perfect sang froid, exclaims “Vive Bagatelle.” But this is digression.

With *Dr. Putzer*, the professor of surgery, I did not become acquainted. I called at his house and left a letter of introduction, but found he was absent on professional duty. He was well spoken of by his colleagues, and is particularly distinguished as a military surgeon—having been, I believe, for a considerable time in the Prussian army. Nor did I see Professors *Killian* and *Nasse*, both eminent in their several departments.

In the way of architecture, there is nothing in *Bonn* worthy of notice, excepting, perhaps, the *University* and *Minster*—the latter an ancient gothic building of moderate pretension. The botanic garden attached to the *Chateau of Poppelsdorf* is said to be beautifully laid out, and to contain the choicest plants, finely preserved. The *Munster Platz*, a

large square, contains a fine statue of *Beethoven*, the musician, who was born in *Bonn*. The scenery in the vicinity of *Bonn* is grand and imposing, especially the seven mountains on the opposite side of the *Rhine*, of which there is a fine view from several points. These volcanic ranges, one of which, the *Drachenfels*, so celebrated by Byron in his *Childe Harold*, I did not visit, for want of time; nor could I, for the same reason, make an excursion to *Godesberg*, *Friesdorf*, celebrated for its alum works, *Königswinter*, *Heisterbach*, *Roderberg*, *Rolandseck*, and numerous other castles and villages, from whose mantling steeples magnificent views of the *Rhine* in every direction may, it is said, be obtained.

Of this celebrated river, traced originally by Cæsar from its rise in the *Grison Alps* to its termination in the *Meuse*, until its final dis-embogement into the sea, so minutely and accurately described by Tacitus, and subsequently by thousands of writers, ancient and modern, what can I be expected to say, merely from a transient flight in a steamer from *Bonn* to *Bieberich*, a distance, perhaps, of one hundred and fifty miles? Nothing more than that this stream, with its vine-clad hills, its frowning precipices, and castellated ruins and forts, each connected with historical associations and legends of the most interesting and marvellous kind, cannot fail to afford to the well-read stranger and traveller of cultivated taste inexpressible satisfaction and delight. And yet how very small and insignificant compared with the mighty floods which water and fertilize the vast regions of our boundless western hemisphere, meandering for thousands of miles beneath the shade of mountains of interminable length and height, presenting, upon a gigantic scale, objects more picturesque, romantic, and soul-stirring, by far, to the lovers of wild, uncultivated nature, than are to be found in other portions of the globe.

After these acknowledgments, however, it may not be amiss to mention, in a passing way, that I left *Bonn* and the dear premises of mine host Schmidt, of the *Golden Star*, at a quarter past four on the morning of the 29th of July, got on board the steamer *Rubens*, and started for *Mayence*. The *Rhine*, here about a quarter of a mile wide, was dark and muddy, owing to heavy rain on the preceding night, and the steamer, long, narrow, uncomfortable, black as midnight, filled with passengers of every clime, not much better than an American ferry or tug boat. The morning, at first overcast, soon became bright and clear, and enabled us to see to great advantage the fine scenery as we approached *Coblentz*, a large fortified town beautifully situated on the left bank of the *Rhine* at the mouth of the *Moselle*, and connected by a bridge of

boats with the celebrated fortress of *Erenbreitstein*. Further up, on the same side, the castle of *Stalzenfels*, once famed as the palace of many a princely bishop, came into view, perched on its rocky pinnacle, thence commanding an almost unbounded prospect. In succession we passed *Oberlanstein*, *Rhense*, *Braubach*, famous for its prison; the castle of *Marksburg*; *Boppard*, with its architectural remnants, once owned by the Knight Templars; the Convent of *Marienburg*, now a hospital where diseases are treated upon the *cold water* system; the castles of *Leibenstein* and *Sternberg*, or the twin brothers as they are called; the castle of *Thurnberg*; the immense fortress of *Rheinfels*, the subject of many a siege; *St. Goar*, beautifully situated in the very bosom of the finest scenery of the Rhine, surrounded by rocks and mountains; the *Laurleiberg*, or black perpendicular rock, and its adjoining cavern, noted for its remarkable echo; *Oberwesel*, a handsome town, renowned for its gothic edifices; *Schomberg*, on the left, and *Gutenfels*, on the right of the Rhine, both ruined castles of celebrity, the latter occupying a lofty summit above the town of *Caub*; *Bacharach*, above which, on a commanding eminence, stands the castle of *Stahleck*, and, in its vicinity, the churches of *St. Werner* and *St. Peter*, both remarkable as specimens of gothic architecture of the most beautiful kind; the castles of *Heimburg*, *Falkenburg*, and *Rheinstein*, the latter recently restored and occupied in summer by one of the Prussian princes; *Assmanhausen*, a small village celebrated for its red wine, known under that name, and drank in great purity on the Rhine, but seldom met with genuine in this or other countries; *Bingen*, a town containing five or six thousand inhabitants, mostly engaged in the wine trade; *Rudesheim*, also celebrated for the excellence of the peculiar wine of that denomination; *Geissenheim*, not far from which is seen, on the hills above, the white mansion owned by *Prince Metternich*, the *Chateau Johannisberg*, from whose vineyards the richest and most expensive of all the Rhine wines, except, perhaps, that of *Steinberger*, is produced; *Erbach*, in whose neighbourhood stands the largest and most celebrated of the Rhenish convents, that of *Eberbach*, now owned by the *Duke of Nassau*, by whom it has been converted into a lunatic asylum, near which is grown the renowned *Steinberger* already mentioned; *Elfeld*, quite a large showy town, around which are many noblemen's seats; *Bieberich*, a stately palace of the Duke of Nassau, handsomely situated on the left bank of the Rhine, and ornamented in the rear by a noble park and gardens. Here terminated my excursion by the steamer through the romantic and picturesque regions of the *Rhine* and *Rheingau*, covered, as far as the eye could discern, with luxuriant vines, shooting their prolific leaf-covered

branches into the interstices of the rocks, whilst their roots—in many instances, covered only by a scanty soil, or supported by baskets of earth suspended from projecting crags, hardly to be reached by the industrious peasants, who in swarms plied their perilous and laborious occupation—sent forth, from excess of vitality, copious streams of fluid, destined, when preserved in its original purity and unmixed, and when used *medicinally*, to prove a blessing to the human family, but when saturated with poisonous drugs, and disseminated to the remotest corners of the world, and, at each successive peregrination, made to receive additional potions of concocted adulteration, admirably calculated to engender most of the maladies and evils flesh has been heir to from the earliest periods down to the present time.

From *Bieberich* I took the omnibus, there stationed to receive passengers from the steamer, and rode to *Wiesbaden*, distant three or four miles, and was astonished to find so large and so beautiful a town. Situated in a lovely valley surrounded by lofty hills, the houses large, white and shining, of the finest proportions, the streets wide and intermingled with spacious squares, its whole aspect is pleasing and attractive. Like *Aix la Chapelle*, smoke may be seen ascending in every direction, as if from smouldering watch fires, indicating in different parts of the town and suburbs the spots whence subterraneous combustions send forth their volumes of heated water, constituting numerous springs, of which there are, at least, ten or twelve copious enough to furnish, if necessary, luxurious baths for the whole of Germany. On this account *Wiesbaden* is the resort of thousands of fashionable people of every rank and degree, of paralytic, rheumatic, gouty and dyspeptic patients without number, all of whom may be seen from six till eight in the morning, and at the same hours in the afternoon, promiscuously intermingled, and crowding about the *Kochbrunner*, or principal spring, holding in their hands large, white, purple, blue, crimson and amber-coloured tumblers of various shapes and devices, which they present in succession to four or five tall, thin, unhealthy-looking, carrot-haired girls, stationed there to wait upon customers, and after receiving from their worn and skinny hands the water, hot and smoking at the temperature of 156, turn and walk to and fro under the shade of a wide-spread canvass awning or through the cool avenues formed by the interlacing of the branches of numerous acacias and elms planted in the vicinity of the spring, and slowly sip and swallow the exciting beverage, transparent enough in the tumblers, but greasy looking, turbid, and far from inviting as it lies in the spring, appearing, too, and even tasting, like chicken broth, to which it has been, not unaptly, compared. In

the course of two hours' perambulation each cripple and old tabby and sprightly maiden generally manages to swallow ten or fifteen tumblers from the boiling kettle, and then walks off their several ways to fill up any nooks or corners of the stomach, that may be left unoccupied, with an enormous breakfast.

This being disposed of, after the lapse of an hour or two, the *baths*, situated in various parts of the town, and in many of the hotels, are crowded to excess, and prove, by opening millions of pores upon the surface of the skin—so essential to perfect health—previously clogged or never opened before, immensely serviceable, provided the operation is not carried too far, or prolonged, at each bathing, beyond proper bounds, which is very apt to be the case from the large size of the bath, the depth of the water, and the delicious excitement, so different from that of an ordinary warm bath, growing out of the peculiar and unexplained influence exercised by mineral baths in every part of the world. Pleasant and beneficial, however, as these *Wiesbaden* thermal arrangements are, I could not avoid contrasting them with many similar warm springs and natural mineral fountains in our own country, especially those of the *warm* and *hot* springs, the *white*, *blue* and *red sulphur* and the *sweet* springs of *Virginia*, those of *Bedford*, Pennsylvania, and of *Saratoga*, New York. Of the *warm springs*, more especially, owned by Dr. *Brockenborough*, a distinguished Virginia gentleman, will it not be almost superfluous to say that the world does not contain, probably, such a bath, so soothingly warm, so clean, so limpid, so luxurious, so ocean-like in the deep blue colour, beautifully diffused throughout its volume, and commingled, translucently, with millions upon millions of gaseous bubbles, looking and feeling, and titillating pleasurably, as they ascend the limbs and body, in serpentine refracting wreaths, like undulating, tremulous streams of quicksilver, communicating to the bather the joyous, exhilarating sensation of being immersed in an immense reservoir of sparkling champagne, and tempting him to quaff the effervescing rills of delicious nectar, as they rise and play about the olfactory and gustatory organs? Who, again, can visit the *hot springs* of the same region, distant, indeed, only five miles from the *warm*, owned by Dr. *Goode*, a most pious, enterprising, intelligent, accomplished physician and gentleman, who superintends, in person, and with the utmost benefit to the rheumatic, scrofulous, gouty, and other patients, who there seek in crowds the use of the numerous baths of varied temperature and property, without receiving the conviction that few, if any, of the waters of *Aix*, of *Borcette*, of *Wiesbaden*, of *Homburg*, of *Emms*, and the rest of Europe, are comparable to them as luxurious or remedial

agents? May not the same, with equal confidence, be proclaimed of the beneficial effects of the *internal* use of the other mineral waters of our country, already mentioned, especially those of *White Sulphur* and *Bedford*, found, by long experience, to be possessed of the strongest and most undoubted sanative power, in all chronic enlargements of the liver and spleen, in all dyspeptic conditions of the stomach and bowels, in various derangements of the renal and urinary organs, in mercurial diseases, in debility and prostration from long residence in hot and malarious climates, and in numerous other complaints unnecessary to mention?

Of the public buildings of *Wiesbaden*, the most extensive and imposing are the *Kur-Saal*, or *La Salle de Reunion*, a large splendid building, situated at one end of an extensive open square, which serves as a gambling house, a restaurant, a ball room, and a drawing room. Two other sides of the square are occupied by splendid shops, under cover of an extensive and beautiful colonnade. At one corner is situated *l'Hôtel aux quatre Saisons*, very large and magnificent, at another, the *Theatre*, whilst in different parts of the town and suburbs the buildings most worthy of notice are *Le nouveau château*, *Le nouveau Geisberg*, *La Platte*, *Les Ruines de Sonnenberg*, the *Dietenmuhle*, &c.

I did not visit, for want of time, *Schwalbach*, *Schlangenbad*, and *Neiderselters*, all renowned for their baths and mineral waters, and none of them very distant from *Wiesbaden* or difficult of access except the last, which, owing to unfrequented and very rugged roads, cannot be reached without great trouble and fatigue. This I regretted the more inasmuch as the *Seltzer water*, the product of this spring, is more, extensively diffused, perhaps, over the world than any mineral fluid in existence, being celebrated for its salubrious qualities, and pleasant taste, so much so as to form, when sweetened and mixed with Rhenish and other wines, a most refreshing and delicious beverage, not surpassed, perhaps, by the far famed *Sherbet* of eastern climes. In ascending the *Rhine* I must have passed some hundreds of sloops, deeply laden with this commodity, handsomely put up in long, reddish, earthen jugs, on their way down, to Belgium, Holland, France and England, thence to be again transported to the remotest parts of the civilized globe. No mineral water has been discovered, I believe, in our country corresponding in composition and quality with the *Seltzer*; and yet amidst the mountainous ranges and mineral regions of our almost unbounded hemisphere, it is by no means improbable such may exist. If discovered, I may safely venture to predict that it will do more in furthering the *temperance* cause—now spreading with unexampled rapidity

over the whole surface of our land, producing immeasurable good by destroying and curtailing the use of *alcoholic* drinks—when used alone and unmixed, in which pure state it is a more agreeable and wholesome drink, than all the coffee, tea, lemonade, root and ginger beer ever concocted to create flatulence and ruin stomachs, even when conjoined with the holy, blessed and successful exertions of *Father Matthew* himself.

After a stay at *Wiesbaden* sufficiently long to enable me to enjoy its chicken broth baths, and to become acquainted with the peculiarities of the place, I left it by railroad, passed through *Mayence*, the birth-place of *Guttemberg*, the inventor of types, and, in two hours, reached the quaint old town of *Frankfort* on the Main. Old town it is still called, and quaint enough in all conscience, if the *Jews' Quarter* with its narrow streets, and roofs and gable ends which almost come in contact by each successive elevation being projected forward into the street, be looked upon as the principal part of the city; but *new Frankfort*,—made to enclose these ancient domicils, and, by strangely contrasting with them, rendering more dreary and dismal than before abodes which an American pig would hardly be willing to put his head into—tells a different story; for few cities in Germany, or indeed on the continent of Europe, can boast of finer architectural specimens than are to be found in the spacious streets and suburbs of regenerated Frankfort, such as the palaces of the *Rothchilds*, natives of the place, and the gorgeous mansions of the numerous other rich bankers and merchants which every where display a pomp and magnificence only to be excelled by London and Paris. There being no associations here, however, closely connected with medical inquiries, although there are eminent physicians and surgeons in the place, and among the rest Dr. Sœmmering, son of the celebrated anatomist of that name, and Sir Alexander Downie, physician to the English embassy, whose time is partially taken up in attendance upon patients at the watering places of *Homburg* and *Wiesbaden*, I determined to set out for Heidelberg, distant from Frankfort about forty miles—after a glimpse at the fine statue of *Goethe*, the new and handsome hospital of *St. George*, the house of *Martin Luther*, the *Cathedral*, museums of pictures and of natural history, reserving for another visit, to be made shortly afterwards, the examination of *Danneker's* almost faultless statue of *Ariadne*.

The railroad between *Frankfort* and *Heidelberg*, like most other German railroads, is admirably constructed, and the cars quite equal to the French and Belgian. The country, however, is poor and flat as far as *Darmstadt*, a clean, showy town belonging to the grand duchy of

Hesse Darmstadt. The Grand Duke resides in the place, and appears to be devoted, almost exclusively, to military affairs; for immense barracks may be seen in the town, and fields of great extent in front of the railroad, perfectly smooth and flat, beautifully inclosed with picturesque fences, serving as drill grounds for troops, which were parading in great numbers, both cavalry and foot, as I passed. *Darmstadt* is a place of little trade, but is celebrated for some of its chemical laboratories, where certain medicines, of the finest and most potent description, are manufactured, and thence exported to various parts of Europe. Between *Darmstadt* and *Heidelberg* the country is exceedingly fertile and beautiful, every inch of ground being tilled like a garden, and the fields covered with vineyards, indian corn and tobacco—the two latter very uncommon crops for any part of Europe. What adds to the beauty of the scene is the imposing grandeur of the mountains of the *Bergstrasse* and *Odenwald* districts, and especially of the lofty *Mellibocus*, so conspicuous from every point by the striking white tower which crowns its lofty summit, and overlooks the course of the *Main*, the *Necker*, the *Rhine* and mountains of Germany and France to an immense distance. Upon reaching *Heidelberg*, so famous for its university and the celebrity of its professors in all the departments of science, I sat down to a comfortable breakfast at the *Badischer Hof*, the best hotel in the town, and afterwards sallied forth in quest of Professor *Tiedemann*, to whom I had borne a letter from my friend Dr. Rivinus of Westchester, in this state. Who that has ever looked into a medical or chemical page but has heard of the names of *Tiedemann* and *Gmelin*? Need I say that both, from their long and early career, although, seemingly, worthies of a by-gone age, are still living and in the enjoyment of as good health and high reputation as fall to the lot of most professional men in any part of the world. I soon discovered in one of the streets, not far from the hotel, a comfortable mansion, surrounded by a large garden, filled with choice fruits, some of which, ripe and luscious, hung in clusters about the windows and almost extended to the house top. I asked a sprightly little boy, who came to the door, if Professor *Tiedemann* were at home. "Yes sir," was the reply "Where shall I find him?" "Up in his study, sir, walk in and I will let him know you wish to see him." He left the room, and returning a few moments afterwards said, "Grandfather desires that you will walk up stairs." Struck with his sprightly manner and with the uncommon circumstance of his speaking English, I said, "Tell me, my son, how it happens that you speak English instead of German?" "Oh," said he, "I am an American, I was born in Ohio, my father lived at

Cleveland, but now lives at Manheim, in Germany." I afterwards discovered that his father was the son of Professor Tiedemann, and had practised physic some years ago, as the child stated, in Cleveland, Ohio.*

Following the lad up a long stair to the third story, I there found the fine old gentleman busily engaged at his writing table, almost

* This gentleman, distinguished alike for his interesting character, intellectual endowments and ardent love of liberal institutions, has recently sought an asylum in the United States, and is now established, with every prospect of well merited success, as a physician in Philadelphia. Having joined the unfortunate patriot ranks in Baden, he was obliged to fly with his accomplished wife—the sister of Hecker—and large family of children, and is now happily beyond the reach of tyrants and oppressors. His distinguished brother, the gallant commandant of the fortress of *Rastatt*, was not equally fortunate, for after having laid down his arms, under a solemn ducal promise of immunity, he was instantaneously led forth and barbarously shot. Who can paint the feelings of his aged parents under such afflicting calamity? Bereft of hope and almost of reason, the great and venerable Tiedemann abandoned at once the university upon which, for nearly half a century, he had shed so much lustre and glory, and is now a private citizen of Frankfort on the Main. Would that he might follow the example of his sons, of Hecker and his compatriots, and by seeking a new home in the land of freedom, enjoy personally, the homage and esteem of the whole American medical republic. Then he might *safely* and *openly* exclaim—"Put not your trust in princes"—"in whom there is no help." Then he might cheer the drooping spirits of his descendants and friends by telling them—

"Bide your time ! the morn is breaking,
Bright with Freedom's blessed ray—
Millions from their trance awaking,
Soon shall stand in stern array.
Man shall fetter man no longer,
Liberty shall march sublime ;
Every moment makes you stronger—
Firm, unshrinking, bide your time !

Bide your time !—one false step taken,
Perils all you yet have done :
Undismayed—erect—unshaken—
Watch, and wait, and all is won.
'Tis not by one rash endeavour,
Men or States to greatness climb—
Would you win your rights for ever,
Calm and thoughtful, bide your time !

Bide your time !—your worst transgression
Were to strike and strike in vain :
He whose arm would smite Oppression,
Must not need to smite again !
Danger makes the brave man steady—
Rashness is the coward's crime—
Be for Freedom's battle ready,
When it comes—but, bide your time !

buried in manuscripts and books. He rose with great politeness and dignity, and upon my addressing him in English, answered in the same language, which I at once discovered he spoke, like most educated and literary Germans, with fluency and ease. I say old gentleman, in accordance with the custom of my country; for an American calls every one old who has fairly got beyond the limits of childhood, whereas in Europe no one is called old, no one is considered old, until he reaches his hundredth year. Upon this principle Professor *Tiedemann*, who was just sixty-six, as he informed me, at the time of my visit, is quite a young man, and really looks and talks and walks like a man of fifty; is truly a very fine looking man, full six feet high, straight as an arrow, thin, but muscular and admirably proportioned, has a large head, expanded forehead, a countenance so benevolent and winning, an eye so blue and full of sympathy, and manners so bland and attractive, as to win the admiration of all who approach him. "Come," said he, after talking in his sanctum a full hour, on all subjects connected with medicine and surgery, and on American matters, "go along with me to my museum, and there see what I have been doing for the last forty-two years." The museum, although belonging to the University of Heidelberg, is not under its roof, but contained in an old building formerly a Dominican convent, at some distance, where the anatomical lectures are delivered. There are four rooms, each from thirty to sixty feet long, filled from bottom to top, with all kinds of skeletons, from the elephant to the mouse, and with preparations dry and wet of every description, numbering upwards of five thousand specimens—the work of *Tiedemann*, his prosectors, pupils, and persons who have contributed to the collection. Here are preserved the original preparations referred to by Professor *Tiedemann* in his different works—the anatomy of the radiata, the development of the brain in the foetus, the heart of fishes, the arteries of the human body, the nerves of the uterus, the brain of mammalia, the Bartholinian glands, the oblique uterus, &c. In the department of human anatomy, the preparations are arranged in ten classes. The first contains the organs of locomotion; the second all the organs concerned in the assimilation of the food; the third the organs of respiration; the fourth the organs of the circulation of the blood—the heart, the arteries and the veins; the fifth the lymphatic system, with the spleen, the thyroid and other glands; the sixth the brain and nervous system, with the organs of sense; the seventh the organs of secretion of urine; the eighth the organs of generation and the mammæ; the ninth the gravid uterus, the human egg, the foetus and the preparations illustrating the development of all its organs; and

the tenth monsters of every description. Most of these preparations are well put up, and those embracing the lymphatic system, brain, nerves, organs of sense, including the injections, are very beautiful and even splendid. Then follow the preparations showing the structures of the human body, when altered by disease, of all systems and organs. This pathological department has been formed by donations from the directors of the hospital and from many professional gentlemen, who have obligingly furnished contributions. The third great section contains the preparations of animal bodies, of all classes of the animal kingdom. The same mode of subdivision into orders is observed in the arrangement of the system and organs, from the mammalia, birds, reptiles, fishes, crustacea, insects, mollusca, annulata, radiata and zoophytes.

Three hours were employed in minute examination of all these interesting objects, when Dr. Tiedemann observed, "Now I will go with you and make you personally known to our great surgeon *Chelius*." We descended accordingly into the vestibule of the old building, but found the large and massive doors closed, securely bolted and locked on the outside. The Professor called in vain upon the name of his curator for release, thundered against the door with all his strength, kicked its pannels until the welkin rang, applied the butt end of his cane and thumped lustily, and then at the top of his voice cried, "*Yacoob, Yacoob, Yacoob*," until exhausted, when he whispered, out of breath, "Your lungs, perhaps, are stronger than mine, do shout as loud as you can." Then I began, "*Yacoob, oh, Yacoob, you Yacoob, why Yacoob*," but all in vain, no *Yacoob* came. At last, said Tiedemann, "German locks can't be picked, German doors can't be forced, that rascal *Yacoob* has locked the door, not knowing I was here, and has gone off, when to return God only knows. Here we are as closely imprisoned as if in gaol, let us make the best of it and go over the preparations again. It will do us no harm. We can't examine them too much." So at it we went again, the professor, ever and anon, venting almost inaudible imprecations against *Yacoob*, thereby interrupting some interesting disquisition. At last, growing impatient, he exclaimed, "I must get out, I won't be confined, I can't bear this any longer." Descending accordingly, to a lower room and trying our strength upon a window which seemed not to have been opened for a century, we succeeded in raising the sash, when the professor, before I could gainsay his movements, began rapidly to descend into a deep area, planting his foot upon a projecting crag of the foundation wall on one side and clinging with his arms to an iron railing on the other, his coat tail bobbing up and down,

his hat flying off at a tangent, and there suspended as it were, between wind and water, without the ability to go down or to return—with no power on my part to assist him—what the consequences would have been it is difficult to say. Fortunately at this critical juncture *Yacoob* hove in sight, and almost frightened out of his wits, lent his master assistance, by procuring a ladder and by main strength, and the co-operation of two or three well-set sturdy German frows, landed the kind-hearted old gentleman safely back to the room he had left, and got from him for his pains, instead of a scold a hearty laugh, in which all, women among the rest, did not hesitate to join. “Now,” said the doctor, “it is too late to go after *Chelius*, turn round this corner and I will show you another building we are putting up for my lecture room, and for holding the large collection you have just seen—the skeleton of that villain *Yacoob*, I hope, some of these days, among the rest.” The building, immediately in the rear of the old one, spacious, lofty, and already covered in, seemed in a fair way to deserve the commendation which the professor bestowed upon its design and contemplated arrangements. My curiosity being satisfied we returned to our respective quarters, he perhaps to let off additional dry jokes at the expense of poor *Yacoob*, and I to test the commodities of mine host of the *Badischer Hof*, in the shape of a true German dinner—not a compound of garlicky and nicotian smells, as some suppose—for which his establishment has long been celebrated. Having finished a hearty repast, in which capital soup, veal chops, calf liver with mushrooms, corned beef in slices, cabbage chopped to the size of a pin’s head, petit pois, figured largely, followed by courses without end of most palatable but nondescript dishes, I was ready to meet again my friend *Tiedemann*, and to go along with him to the house of *Chelius*, hard by.

Three years ago, possibly, few of you even heard the name of *Chelius*, his merits being wrapped up in the German language, and his reputation thereby little known on this continent. But since *South*, his translator and commentator, has furnished him with a suit of English clothes, not cut in the style of a Stultz or Nugee, but, on the contrary, remarkable for their slovenly fit and the coarse materials with which he has made them up, to say nothing of the heavy capes, the bagging pants, the vulgar vests, with which he has loaned and loaded him, for temporary use—in the shape of a text three times as large as his own, with views and sentiments as opposite as the poles—who among you can have failed to know of the existence of such a man?

I myself had long been familiar with the writings of *Chelius*, through a well written French translation by *Pigne*, and felt strong desire to

make personal acquaintance and judge whether I had estimated him rightly or not. He was at home, and Dr. Tiedemann and myself were shown, at once, to his office, where he was engaged in prescribing for a few private patients. I was struck, immediately, with his gentlemanlike appearance, his dignified bearing, his quiet unpretending demeanour, his slow, calm, gentle mode of questioning his patients, his soothing replies to their anxious interrogatories. I found him rather tall than otherwise, stout, finely proportioned, very upright in figure, with large head, straight small nose, blue expressive eyes, flat features slightly marked with small-pox, very neatly and genteelly dressed, and should have taken him, from this last characteristic alone, had I met him, unknown, in the streets, for a finished gentleman, or man of rank. His son Frank, a fine looking youth of twenty-two, very like his father, was made known to me, had just returned from Edinburgh and London, after enjoying for a year or two the professional advantages of those places, particularly in *St. Bartholomew's* and *George's* hospitals. After conversing for half an hour, *Chelius* invited me to go with him and see his hospital, occupying a high and airy situation on the skirts of the town. It is not very large, nor abundantly supplied with patients—an evidence of the healthfulness of the place—but clean and well conducted. The operating room is small, though admirably arranged and lighted. There is a very large collection of instruments, ancient and modern, enough, indeed, to fill a room of respectable dimensions, but most of them, as *Chelius* remarked, very complicated and of little use—only proving that in every age, men's minds have been too apt to run astray in searching for difficult and out of the way contrivances, rather than follow the simple dictates of nature and common sense. Several interesting cases were pointed out to me, one in which a vesico-vaginal fistula had been reduced to the size of a hair by repeated applications of lunar caustic; another, where a man, having fallen from a great height, had fractured the bodies of the dorsal vertebræ, without the accident being followed by paralysis, and only with slight derangement of the vesical function; a third, a cancer of the lower lip in a woman, the first *Chelius* had ever met with, though he had operated upon hundreds in men, and had been induced, consequently, to assert in his lectures that it never occurred in the female, a mistake I was happy, so far as individual experience went, and observation in the practice of others in this country, to correct, though bound, with him, to acknowledge as a rare disease, compared with its frequency in the other sex; fourthly, several cases of successful operation for cataract by *depression*, a mode he prefers to any other; fifthly, two or three amputated stumps by circular incision; sixthly, numerous examples of

serophulous joints—almost as common here as in Belgium among the lower orders, who live chiefly on vegetable food; seventhly, a large tumour on a boy's neck of uncertain character, which *Chelius* was hesitating to operate upon, under the persuasion that it was likely to turn out *Fungus Hæmatodes*, and if so, that no benefit could possibly result; rightly a case in which ether had been tried and the patient rendered so frantic by it as to make it impossible for him to go on with the operation lest it should terminate in death, cases of which he had known and heard of. After this visit I saw *Chelius* repeatedly, rode with him through the town and adjacent country, received his visits at the *Bad-dicher Hof*, and drew the conclusion, from all I saw, that he was deeply read in his profession, modest, unassuming and quiet in his nature, a close observer, prudent and cautious in the extreme, in his practice, entirely free from trickery of every description, honest, truthful, a decided enemy to dashing, unnecessary and hazardous operations, bold and fearless, when the case really demanded such qualities, and more like, in most respects, our late venerated Professor *Physick*, than any individual I had ever met with.

To show how very averse he is to hazardous operations I may mention, that, upon asking him if he had ever attempted to extirpate the thyroid gland, he replied, "never, because I have always considered it improper and unnecessary, from having, repeatedly, succeeded in removing the largest bronchoceles, simply by tying the superior and inferior thyroid arteries, or by making incisions into them; that *Klein* of Stutgard had once operated and continued the dissection after the patient was dead, not knowing that he was dead, or even in danger;" that *Fricke*, of Hamburg once said to him, "*Chelius*, why don't you extirpate that large thyroid gland in your hospital?" "Because," he answered, "I don't think it proper so to do, but if you think otherwise, I will allow you to operate and be your assistant—when *Fricke* immediately backed out by declining the proposal. "Many surgeons," he continued, "have a *mania* for operations, which is derogatory to the profession, and most unjust and injurious to their patients.

Chelius is now about fifty-five years of age, looks much younger, is said to be a plain, systematic, instructive lecturer, upon whose statements students may place implicit reliance, is no declaimer, never lauds himself, has the reputation of being wealthy, and of receiving, *really* and not fictitiously, large sums from his practice, has patients to visit him from all parts of Europe, has been sent for from England, lives in good but not extravagant style, and is considered, upon the whole, one of the best surgeons Germany contains. From speaking English, flu-

ently and correctly, I could understand and appreciate every thing that fell from his lips.

My acquaintance with Professor *Tiedemann* having auspiciously commenced, was unremittingly kept up during my stay of nearly a week, in his beautiful and romantic town. It was my privilege to call upon him at any hour of the day at his town house and range over his extensive and valuable library as long as I pleased; to scrutinize his own numerous and interesting productions, forming no inconsiderable part of it, and receive his commentaries and explanations upon them, to walk with him to the *Castle*, to his country seat over the Neckar, on the side of the *Heiligeberg* or holy mountain, to the University, book stores, market places, print shops, and wherever objects of interest were to be found. With him and his family and a party of their friends, invited upon the occasion, I had the honour of spending the afternoon of a delightful day, under the walls of the *old Castle*, where a small restaurant is kept, famous for its good cheer; and after partaking of coffee, delicious beer the product of Seltzer water, and the pure juice of wine grown in the neighbourhood, entirely free from alcoholic admixture, and various other delicacies, we all perambulated through the cidevant halls and banqueting rooms of the *Palatine Electors Rudolph and Rupert*, of *Frederick the second*, of *Otho Henry*, of *Frederick the fourth* and his *Queen, Elizabeth*, granddaughter of *Mary Queen of Scots*, through the once magnificent gardens and shrubberies, penetrating to the cellars, in one of which still exists in fine preservation, the immense and marvellous *tun*, long since unused, but capable of holding eight hundred hogsheads of wine, at last emerging upon the *Terrace*, from which the most enchanting view of the windings of the *Neckar*, the *Rhine*, distant mountains and villages were obtained.

To the pleasure derived from the scene we had the additional gratification of listening the greater part of the time, to a delightful band of music, such as can only be found in Germany, but so common there as to be heard in all places, more especially watering places, from the morn's early dawn, throughout the day, and even during the thus interrupted silent watches of the night. Upon descending from our lofty position, the ascent to which is no easy matter, looking up to the magnificent ruin overhanging the town, and towering in awful sublimity upon every object below, I could not avoid concluding that I had seen nothing as a whole to compare with it, not even excepting the *Abbey of Melrose*, to which in some respects the remnants of architectural design and workmanship of one or two of the buildings are quite equal. I may go further and say, that of all the towns I have ever beheld, making due

allowance for the want of splendid public buildings and beautiful dwellings, of which there is a scant supply, owing to the numerous sieges it has sustained and destruction from repeated conflagration—few can be compared, on account of its situation and surrounding scenery, to *Heidelberg*. Only imagine a bright airy town, extending for a mile along the left bank of the beautiful *Neckar*, in the very gorge of lofty precipitous mountains, so inclosed on each side by them as to be shut out, apparently, from the world, and yet so open and exposed as to be seen very distinctly an immense distance throughout the fertile and picturesque region of the *Bergstrasse*, and from the extensive heights and slopes which bound the valley of the same name in which the river flows.

During my frequent walks with Professor *Tiedemann* through the streets of *Heidelberg* and rooms of the University, I often met with groups of medical and other students, many of whom were slashed and disfigured about the face, and crippled in their limbs from the repeated duels in which they are accustomed to engage—it being by no means uncommon, he informed me, for a single individual to be concerned in thirty or forty combats during the course of his collegiate curriculum. In other respects they were mostly tall, fine looking, well dressed young men, very polite, sociable, quiet and respectful in their deportment, especially to those professors who happen, like themselves, to be imbued with liberal political principles, and opposed to aristocracy in all its forms and bearings. The medical class at *Heidelberg*, I found rarely to exceed one hundred and fifty in number, but that number thoroughly educated and almost to a man talented. The whole number attending the University, including medical, law, history, divinity, natural history students, seldom rises above six hundred. Dr. *Tiedemann* kindly walked with me to the house of his different friends and colleagues—*Gmelin*, *Pfeuffer*, *Nagele*, *Puchelt*, *Henley* and others, mostly fine looking men, courteous and extremely intelligent in appearance. With *Henley*, so well known here and in Europe, by his writings on microscopical anatomy and pathology, I was particularly struck. He is a small, active, well made, muscular man, about thirty-five, with a very bright, scrutinizing, thoughtful face, which seems as if it could look through one in a moment, and find out what stuff he is made of. I was shown into his study, suddenly, by an awkward servant, and took him unawares whilst sitting, after a hard day's work, during which he forgot his meals, over a table, holding in both hands the thigh and leg of a cold chicken, which he was pulling to pieces in fine style, by a set of as strong and white teeth as are commonly found in most men's

mouths. He rose half choked, half confounded, threw down the chicken, wiped his greasy mouth and hands with a towel, apologized for the predicament in which I had caught him, by explaining the cause, rattled away on all subjects, asked me a hundred questions, answered them himself, and was as free and jovial and kind as if he had known me for fifty years. I afterwards found he was a great favourite with his pupils, as much from his talents, free and easy and conciliating manners, as from his decided democratic principles.

The day before leaving *Heidelberg* I spent a whole afternoon and evening with *Tiedemann*, at his chateau over the *Neckar*, directly opposite the town. It is a small cottage like building of two stories, in the English, or rather Swiss style, perched upon the side of the *Heiligeberg* mountain, and overlooking the Neckar valley, up and down, an immense distance, embracing, among other objects, thirty miles off, the castle of *Trifels*, where *Richard Cœur de Leon* was said to have been confined by an Austrian duke.

From the piazza of the cottage is also obtained a splendid view of the town and castle, and back of those, of the *Königstuhl* or *Kingsseat* mountain, as well as the *Geisberg* or *Goat mountain*; all of which are transcendently beautiful from this point.

The ground upon which the cottage stands does not exceed an acre, and is covered with thriving shrubs of every description, and with a vineyard so fruitful as to yield its owner annually six hundred bottles of the finest wine. The walls and entries of the chateau are covered with beautiful engraved views of *Heidelberg*, the adjacent country, *Frankfort* and other towns, and are dotted with the cards of numerous visitors and distinguished persons who, from time to time, have called to pay their respects to its celebrated owner. With Mrs. *Tiedemann*, the fine looking and accomplished lady of the Professor, I here became acquainted, and with other grandsons, born at *Cleveland, Ohio*, than the one with whom I held converse in English upon my first arrival in town. But the greater part of my time was taken up in conversing with the dear old gentleman, if I may, American like, so call him, on all subjects connected with the profession; anatomical, physiological, pathological, and, above all, on natural history, phrenology, American scenery, manners, plants, animals, rivers, lakes, mountains, and men, red, white and coloured, in all which he took a very deep and abiding interest, inquired particularly after Dr. *Morton*, whose large work on *Crania Americana* he extolled, spoke in high terms of *Stevens' travels* in *South America*, and complained of not being generally able to get

original American works of standing, which he was acquainted with mostly through the Journals.

In course of conversation, *Dr. Tiedemann* remarked that he had never practised the profession of medicine or surgery to any extent, nor engaged in it at all, for forty years, that he found his professorship and the studies connected with it, as much as he could possibly manage, that no anatomist, or chemist, on the continent, ever thought of attending a patient of any description. In confirmation of this, I may state, an acquaintance of *Dr. Tiedemann** afterwards mentioned to me, that upon walking with him on one occasion, in the suburbs of *Heidelberg*, a man in falling from a height, had his skull fractured, just as they passed along, when he said to the Doctor, "Do you not mean to attend to him?" "Certainly not," he replied. "I know nothing of practice, and his friends would as soon think of calling for the judge on the bench, as upon me for medical or surgical assistance." These statements will sufficiently account for the very numerous works of which he is the author, many of them large folios and quartos of the greatest interest and value. The following list of all he has published, independently of immense contributions to periodical journals, will fully sustain the assertion. His first publication, an Inaugural Dissertation on Polypus of the Heart, in 1804,—his second, Zoology, in two volumes, Landshut, 1808,—third, the same work, under the title of Anatomy and Natural History of Birds, 1812,—fourth, Anatomy of the Heart of Fishes, Landshut, 1809, with plates,—fifth, Anatomy and Natural History of the Cerastes, or Horned Viper, Nuremberg, 1811, with plates,—sixth, Anatomy of Anencephalous Fœtuses, Landshut, 1813, fol. with plates,—seventh, Anatomy and History of the Formation of the Brain in the Human Fœtus, Nuremberg, 1816, with plates,—eighth, a French translation of the same, by J. L. Jourdan, Paris, 1823,—ninth, English translation of same, by W. Bennett, Edin. 1826,—tenth, Anatomy of the *Holothuria Asterias*, a prize Essay in the Institute of France, in 1812, Landshut, 1816, with plates,—eleventh, Appel and Lilipchitz's Natural History and Anatomy of the Amphibia, part 1st, Genus *Crocodylus*, Heidelberg, 1817, fol. with plates,—twelfth, Treatise upon the supposed Bear-like Sloth, Heidelberg, 1820,—thirteenth, Tiedemann and Gmelin, Researches upon the passages which various substances take from the stomach and intestines into the blood; and on the function of the spleen, Heidelberg, 1820,—fourteenth, a French translation of the same, by Keller, Paris, 1821,—fifteenth, *Icones Cerebri Simiarum et quorundum mammalium variorum*, Heidelberg, 1821, fol.—sixteenth,

* My friend, Dr. A. E. Hosack, of New York.

Tabulæ Nervorum Uteri, Heidelberg, 1822, large folio,—seventeenth, Tabulæ Arteriarum Corporis Humani, Carlsruhl, 1822, fol.—eighteenth, the same translated by Knox, Edinburgh, 1835,—nineteenth, Tiedemann and Gmelin, Researches upon Digestion, Heidelberg, 1826, twentieth—French translation of the same, by Jourdan, Paris, 1827,—twenty-first, Egg of the Turtle, Heidelberg, 1830, with plates,—twenty-second, Human Physiology, Darmstadt, 1826,—twenty-third, English translation of the same, by Gully,—twenty-fourth, on the Brain of the Negro, compared with that of the European and the Ourang Outang, in the Philosophical Transactions, for 1836, two plates,—twenty-fifth, upon the Glands of Duverney, Bartholin, or Cowper, in the Female, &c., Heidelberg, 1820,—twenty-sixth, Tiedemann and G. Trivirani, Physiological Gazette, Heidelberg, 1822, five vols.—twenty-seventh, upon Contraction and Closure of the Arteries, Heidelberg, 1843, with plates,—twenty-eighth, on Living Worms and Insects found in the Nose, Mannheim, 1844,—twenty-ninth, Supplementa ad tabulas Arteriarum Corporis Humani, Heidelberg, 1846, large folio.

Upon taking leave of Professor Tiedemann and his interesting family, he presented me with some of his publications, and with an uncommonly well developed specimen of the glands of Bartholin, requesting me to transmit to him any original American Medical publications for himself or the University of Heidelberg, through his brother, Peter Tiedemann, Esq., of Bremen. I mention this for the benefit of such American writers as may wish their works to become known in Germany. With great regret I took leave of the celebrated and benevolent gentleman, of whom I have furnished so long an account, receiving from him, after the friendly fashion of his country, a glowing kiss on the right and left cheek, and a hearty squeeze of the hand, which caused my fingers to tingle for an hour afterwards.

LECTURE II.

GENTLEMEN :—

The next morning I left for *Geissen*, sixty miles off, passing again through Darmstadt, sojourning a few hours at Frankfort, and reached my destination about eleven at night, stopping at the *Rappen*, a miserable inn, but the best in the town, the want of comfortable accommodation, however, alleviated by the kindness and good-will of the landlord and his obliging servants.

In *Geissen* there is no attraction—the town being old-fashioned, dirty, and disagreeable—save that of *Leibig*, the renowned chemist and philosopher, and a few of his associates in the University. I turned purposely aside, out of the regular high road to *Berlin*, to see him and them, and was rewarded for so doing. Calling upon him half an hour before he commenced his lecture, taking with me a letter of introduction from one of his distinguished and favourite pupils, Professor *Hosford* of Cambridge, Massachusetts, he received me with great kindness, saying, as he glanced at the letter before opening it, “Ah, that handwriting I should know if I were to meet with it in the desert of Arabia,” took me through his laboratory, explaining, fluently, and in excellent English, all the chemical manipulations and experiments then going on, gave me several of the products of his recent discoveries, especially specimens of *kreatin*, and *kreatinin* and *lactate* of lime, introduced me to two young Americans, his pupils, of whom he spoke in the highest terms—Mr. *Rosencrantz*, of Philadelphia, and *Sommer*, of South Carolina—and concluded by showing me an apparatus with which he had been experimenting with the view of explaining the connexion between the skin and the fluids of the body—his theory being that by the perspiration a void is created causing a determination to the surface. The instrument referred to is a small glass tube bent upon itself, and containing a small quantity of water, and closed at each end by a membrane. One end is placed in a vial containing oil or some equally heavy liquid, while the other remains exposed to the air. By the evaporation of the

water, a partial void is created, the liquid is determined to and through the membrane, and a species of endosmotic action is the consequence. In like manner by the evaporation of the perspiration from the surface of the body, a partial void is created. In the chemical laboratory, consisting of two or three small rooms, communicating, I found other students all engaged in making experiments for their own or for the use of Professor *Leibig's* lectures. The lecture room, adjoining the laboratory, is quite small, of very common aspect, and not capable of containing, apparently, more than one hundred students. About sixty-five were in attendance, and the room then occupied by them, as the lecture hour was at hand. During the winter, the usual number of students in the chemical department, seldom exceeds one hundred and twenty, but the whole number, including the academical, theological, law, medical, and other departments of the University sometimes amounts to five or six hundred.

In personal appearance, *Leibig* is quite prepossessing. He is rather tall, probably about five feet eleven, thin and well proportioned, a little stooping or rounded in the shoulders, long in the neck, upon which the head, not very large, is well set and balanced. His features are very expressive, his eyes dark, brilliant and piercing, his visage sharp and thin, his nose rather long and pointed, slightly elevated and undulating about its centre; the mouth compressed and indicative of great energy and determination. As a lecturer, I found him agreeable, his manner being composed, quiet and steady, his elocution free, perspicuous and flowing, and his experiments readily and successfully performed. He struck me, too, as a polished gentleman, being well dressed, very neat and clean, not only in his shirt, but exterior habiliments; his face and hands, too, those defective members in most chemists, being smooth, white, and even lady-like. Upon the whole, I was very much pleased with him, and did not wonder that he should win the admiration and respect of his pupils and the public, especially as along with his simple, unaffected, unpretending demeanor, there is mixed up a full share of dignity and other high qualities. Of his merits, indeed, there can be no question, although there are some, both in Europe and America, inclined to say, or believe, that his reputation is on the decline, and that Mulder, of Utrecht, is likely to go beyond him in discovery and improvement. This may be owing to the recent, unfortunate difference between them, so that the friends of each have become warm partizans, and accustomed to elevate one at the expense of the other, according to their own particular bias or prejudice. It would be in better taste to say, that both enjoy a very high and deserved reputation. How, indeed,

can it be otherwise with *Leibig*, when the town of *Giessen* seems to depend upon him almost for existence, through the immense number of strangers there attracted to see and hear him, many of whom hardly knowing the meaning of the word chemistry, jump into a cab, drive fifty or a hundred miles full speed, pass a miserable night at the *Rappen*, and, after being almost suffocated with abominable smells, and crawled over by troublesome customers, rush up the next morning to his laboratory, interfere with his time by getting him out and having him trotted, as it were, backwards and forwards to satisfy their vanity and craving appetite for that sort of distinction, and then leave the place with as much celerity as they came into it.

After lecture, I repaired to the hospital, quite a commodious, airy building, close by, and found *Dr. Wehrner*, the Professor of Surgery, busily engaged in taking off the arm of a young man stretched at full length, and in apparent state of insensibility from the influence of ether. Taking advantage of the patient's tranquillity, I stepped up, told him my name, and apologized for intrusion. My dear sir, said he, I am delighted to see you, and shall be glad of your assistance, for I much fear this poor lad is about to die from the effect of your American remedy. Tell me what I shall do. I said, throw up that large window, draw the table close to it, scatter this crowd of students, dash cold water on his face, and I think he will soon recover. This was no sooner said than done, when the man slowly opened his eyes, a shudder passed across his frame, followed by a few convulsive-like twitches, two or three deep inspirations, when he started up, as if waking out of a dream, stared wildly around, and in a few moments more was himself again. I myself had employed ether before leaving America, had seen it used in numerous cases in England, in France, in Belgium, without witnessing, until now, any thing like an injurious effect; nor have I since seen any ill-consequence from it as used, subsequently, in a vast number of instances in Paris, London and Philadelphia. I, therefore, conclude that there must have been some peculiar idiosyncrasy in *Dr. Wehrner's* patient, and in the others upon whom the remedy has appeared to operate injuriously.

The operation being finished, I accompanied the professor through his wards, and saw numerous cases of scrophulous ophthalmia, white swelling, fractures, not treated upon *Suetin's* plan, but put up in ordinary dressings, an exostosis, large as an orange and of only three days standing, in the radius of a boy of fourteen, and several other cases, such as are usually met with in hospitals. Professor *Wehrner* is a stout, well built man, seemingly of thirty-five, with large intellectual looking

head, near-sighted, of pleasing manners, well informed, as far as so short an acquaintance would allow me to judge, and a ready speaker, as I found from listening to his clinical remarks.

I ought to have stated that previous to paying my respects to Professor *Leibig*, I had stepped into the University and there found Dr. *Bischoff*, the Professor of Anatomy and Physiology, engaged in a lecture upon the heart and arteries, which I listened to with great pleasure, his voice being clear, distinct, deep-toned and sonorous, and his manner quiet, deliberate, dignified, and interesting. After lecture I presented my credentials, in the shape of a letter from the Prussian Ambassador at Washington, formerly a class-mate of his at college, and was very politely received, the more so, probably, as I took a note to him from his father-in-law, my friend *Tiedemann*, of *Heidelberg*. The anatomical museum is small but well arranged, and consists of interesting specimens in almost every department, beautifully put up. The skeletons, in particular, of men and animals, were as white as snow, admirably wired and placed in the most tasteful and natural attitudes. Many of the preparations, especially those of the testes, eye and ear, constituted part of the cabinet of the late celebrated Dr. *Thomas Scemmering*, the author of the well known and highly appreciated work on minute anatomy. There were, also, several living animals, kept in a sort of menagerie adjoining the museum, among the rest an enormous brown Norwegian bear, almost as large as the gristly bear of our rocky mountains, and several dogs with fistulous openings in their stomachs, artificially produced, upon which the professor was engaged in a series of experiments. The museum also contains a specimen of *Leptidosiren*, the one dissected and described by Professor *Bischoff*, who was the first to give an account of the animal. *Bischoff* is a tall, broad-shouldered, fine looking, very muscular, powerful man, about thirty-five, and full six feet high. His features are agreeable and expressive, his eyes large and bluish gray, his hair dark chestnut, abundant, pushed up on one side of his forehead, as if it had been suddenly smoothed and pressed by a hot iron; his nose, the most remarkable feature in his face, aquiline to an unwonted degree, and in size tremendous, nevertheless eminently handsome, from its regularity and fine, full, flowing outline. Like his father-in-law, he does not practice, but confines himself strictly to anatomy and its kindred branches. High as his reputation is, I found him lecturing to seven students, with as much energy as if he had been pouring the contents of his cranium upon seven hundred. In the winter, however, his class amounts to fifty or sixty. Dr. *Will*, one of the eminent professors, is a fine, intelligent looking man; I did not hear him

lecture. Notwithstanding the narrow and crowded streets of *Giessen*, and its dilapidating houses, excepting an elevated portion near the hospital and *Leibig's* dwelling, where there are some good buildings, it is the principal town of the province of Upper Hesse, and is finely situated on the river *Lahn*, which meanders through a beautiful vale until it discharges its waters into the *Rhine*.

At six o'clock on the fourth of August, I left *Giessen* in a miserable Diligence, travelled at the rate of four miles an hour through a country mostly barren and uninteresting, and reached *Fulda*, a bright, showy looking town of Saxony, late in the afternoon. Here I found another Diligence, equal in comfort to the one in which I had been stowed all day, waiting for *Giessen* passengers. Into this I managed to pack myself, and after being nearly smothered by the smoke of villanous pipes, which came reeking hot and pestiferous from men and women, during the whole night, arrived, half dead, at *Eisenach*, in Thuringia, at four o'clock the next morning. Here I had not time to halt and visit the castle of *Wartburg*, not far off, where *Luther* was a prisoner many months, wrote several works and translated a large part of the Bible,—but took the cars at six on the same morning for *Berlin*, passing through many districts and towns, such as *Gotha*, *Erfurt*, *Weimar*, *Kothen*, *Naumberg*, *Weissenfels*, *Merseberg*, *Halle*, *Dessau*, and numerous villages, most of them more or less interesting, as connected with the history of the Reformation, and subsequently, as the scenes of battles and political negotiations. Upon reaching *Berlin*, late on the same afternoon, I took up quarters at the *Hotel de Rome*, the best, perhaps, in the town as regards situation, though inferior in other respects to the *Hotel de Russe*. The university, different museums, the palace, and most of the important public buildings being in the same street, the *Unter den Linden*, a remarkably broad avenue, finely shaded by a double row of lindens which occupy its centre and extend upwards of a mile, leaving intermediately a delightful promenade, and on each side a street and wide pavements, rendered it very easy for me to examine, in a short time, every object worthy of notice. My first visit was to the university, a truly magnificent edifice, its centre receding so as to form three fourths of a large hollow square, enclosed on the sides by extensive wings, which, together with the main building, thus front on the *Linden Avenue*, and might easily be mistaken for a gorgeous palace. After ranging through the different suite of rooms occupied by professors and pupils in all the departments of literature and science, I found my way, instinctively, to the museum of human and comparative anatomy, occupying the entire space of one wing, subdivided into six or seven large

rooms and corridors, communicating freely with each other, and containing a superb collection of specimens, all beautifully prepared, admirably arranged, and many of them rare and unique. The collection of comparative anatomy, in particular, is very rich—the skeleton of almost every animal, living and extinct, being there found. It so happened, that in turning a corner and emerging suddenly from behind the skeleton of a huge whale, I came, unexpectedly, upon a well set man of medium height, black hair, very expressive eyes, agreeable visage, about forty-five, busily engaged in superintending a group of workmen, while they plied their fingers and forceps in arranging and putting together, by rods and wires, the bones of an immense creature, which I thought I recognized as an acquaintance. The gentleman immediately stepped forward as I approached, and accosting me, politely asked if I wished to see him. I gave my name, and in return received that of Professor *Muller*. Having in my pocket a letter of introduction, I handed it to him, and from that time until I left Berlin received the kindest and most marked attention. The skeleton referred to turned out, as I supposed, to be the identical one exhibited by *Kock*, in Philadelphia and other large American towns, some two or three years since, being a specimen of the *Basilosaurus* of Harlan, or of the *Zeuglodon Cetoides* of Owen, having been found by Kock in our western country, and afterwards taken to Europe and sold to the museum of Berlin, where I again met with it. According to *Muller* it is an European animal, minutely described by an old Italian writer, whose work he put into my hand. *Harlan's* description of the same species of animal he considered perfectly correct. *Muller* does not believe in the existence of the American sea serpent, and thinks, with Owen, that it is the *squalus maximus*. All the preparations relating to human anatomy, physiology, and pathology, were kindly pointed out to me, by the professor himself, who stated that no regular catalogue of the collection, except a very old one, had ever been published. It struck me that the injections of the arterial and venous systems were extremely beautiful—especially a single specimen of the arteries of the head and face, so minute in their ramifications and endless tortuosities as to exceed any thing of the kind I had ever witnessed before. The mercurial injections, also, of the lymphatics in man and various animals, were inimitably fine, particularly those of the tubuli and other parts of the testis. Among the monsters were two foetal heads, directly connected with the funis umbilicalis, the only specimens, according to *Muller*, known to be in existence, and of both which a circumstantial account had been furnished in theses by graduates of the University of Berlin. The collection of urinary and other calculi

in man, and the mammiferi was very large and interesting. A specimen of one taken from a porpoise, was very hard, oval, and of light grey colour. Muller said he had never seen or heard of one taken from a whale, and seemed surprised when I told him I had a large specimen, the portion of a mass that would have filled a bushel, removed from the urinary bladder of one of these animals.* The specimens of osteo sarcoma are very large and numerous. One in the upper jaw equalled in size and shape a cocoa nut, whilst others, in the same individual, nearly filled the pelvis and involved the lungs and thigh bones to a great extent. Having enjoyed, for three hours, a rich repast in the examination of this splendid museum, I took leave of Professor *Muller*, after a promise to spend the evening with him at the *Geographical Society*, where we accordingly met again at the hour agreed upon. Here I found assembled about seventy-five literary and scientific men of all professions, many of them officers in the army and in full uniform, and all of more or less reputation as savans. Soon after congregating in a large hall handsomely decorated, in which two or three long tables covered with plates, knives and forks, for the discussion of other matters after a lecture was disposed of, the meeting was opened by an extemporaneous address on the part of *Rosas*, brother to the celebrated chemist of that name, who had just returned from the Alps, and proposed to furnish his *confrères* with a full account of his journey. His endeavours seem to have been crowned with success, judging from the repeated plaudits and the hearty laughs frequently elicited by the witty remarks made and ludicrous stories told by the quaint and waggish looking old gentleman.

The next object of attraction to me in *Berlin*, was *Dieffenbach* the celebrated surgeon. I devoted, accordingly, the greater part of the day in attempts to see him, called repeatedly at his house, at first, early in the morning, then at numerous intermediate hours, and finally at night, but without success. He was either not at home, or so engaged with patients, as not to be visible. I began almost to despair of accomplishing my purpose, and mentioned the difficulty to *Muller*, whilst walking together in the streets. At the same moment, just in our rear was distinctly heard the loud rattling of a cab. *Muller*, as if instinctively, immediately turned round and exclaimed, "there he comes at full speed, I thought I knew the sound of his wheels and of his horse's hoofs, now we shall catch him," and immediately sprang forward into the street to interrupt his progress—but in vain, the driver cracked his whip, and the noble gray, evidently a trotter, bent his knees and lifted his legs with increased vigour, whilst his master crouched in a corner with his head barely to be seen above the panel of the door, with a significant

* Presented to me by Dr. Hardy, of New Bedford.

nod, and motion of his finger, seemed to say it is impossible, I am going upon an errand of life and death, and can't and won't be stopped. And, John Gilpin-like, away he went, at a furious rate, the carriage hopping ever and anon from side to side, and the fire flying from the horse's heels like streaks of lightning. "He's a venturesome devil, at any rate," exclaimed *Muller*, "and sooner or later will break his neck. But I am determined you shall see him, if I have to haul him out of bed." Two hours afterwards, I received from him a note, saying, "I have caught the runaway, and made an appointment with him to see you this evening, at seven o'clock. Call upon me at that hour, and we will go together to his house." Upon entering the hall of his mansion, a magnificent one, a few doors from Linden avenue, and fronting the river Spree, a small active man, with large head and prominent nose, with both arms and each forefinger protruded upwards, came with a half pacing half trotting motion directly at us, and exclaimed in broken English, and in sharp, shrill, and lengthened tones, "Ah, Dr. Jibson, I am much pleased to see you; am so sorry it was impossible to stop, but entre, come in, come in." So we followed him into a large drawing room, splendidly furnished, and fitted up in the most tasteful way, when finding it not easy to express himself as fluently as he wished, he said to the servant, "Go to Madame Dieffenbach, tell her to come here directly, tell her I want her to talk English, that I won't excuse her, she must come." Then he began in the same deliberate, yet quick way, and in the same squeak of voice, which seemed peculiar to him, to apologize for not seeing me when I had so often called, and particularly for not stopping in the street, saying a large artery had been cut, and he was flying to the patient, lest he should bleed to death, then complaining that he was almost killed by fatigue, could hardly stand on his legs, and yet the next moment, as Madame Dieffenbach entered, he bounced from the sofa like a ball, flew towards her with arms and fingers up, faced about, and brought her with step as quick as his own directly in front, and most unceremoniously made me known to her, saying, "talk now as much as you like, I want to hear all about you and your country, and France, and England, and wherever you have been; talk on and I will listen." *Muller* sat as still as a mouse, his temperament belonging to the quiet, sober order, whilst Madame Dieffenbach and myself engaged in full conversation, chiefly in relation to her husband, his hospital, his practice, his students, his children, his fancies, his pets, only interrupted by an occasional interjection or hum on his part, objecting to the picture she had drawn, while she as pertinaciously and pleasantly maintained the strength and vividness of the same. In this way several

hours were delightfully passed, when I rose to take leave, saying I should take my departure the next morning. "Indeed," said he, "you shall do no such thing. You must and shall stay and dine with me to-morrow at five, and I will invite Muller and other friends to meet you." It was in vain to protest that I could not stay, whilst he was equally positive I should. "What," said he, "leave Berlin after two or three hours talk, runaway with all that nonsense my wife has told you, say you have seen Dieffenbach and know all about him. No, no, that will never do, you must stay, I'll get up an operation for you, and let you see what I can do." I found there was no resisting, promised to be there at the appointed hour, and bid good night.

The next morning I rode to *Dieffenbach's* hospital expecting to find him there, but his time of attendance had just expired, and he was, therefore, not forthcoming. I was politely shown by one of the pupils, through the old building, not remarkable either for size or neatness; and after being fully satisfied, rode to *La Charite*, another old hospital upon a much larger scale, and with more comfortable accommodations, capable, indeed, of containing seventeen hundred patients. There I found Dr. *Jungken* delivering a clinical lecture to half a dozen students. He is a tall, thin, good-looking man, about forty, with light red, or sandy hair, blue eyes, lively in conversation, fluent as a speaker, and very polite and gentleman-like in manners. I was shown through several of the wards by him, and saw four or five interesting eye cases upon which he had successfully operated. Being then obliged to leave the hospital and deliver a lecture at the University, he took leave after turning me over to Dr. Kramer, one of the house pupils, who politely conducted me through the rest of the hospital, and through wards where Dr. *Schide*, another of the surgeons was prescribing and making clinical remarks. He is much taller still than Jungken, but not so intellectual in appearance. His principles and practice did not accord with my notions; for I saw under his care two fractures of the forearm with great deformity from the splints extending merely to the wrist, a badly treated case of compound fracture of the leg, an amputated stump of a leg followed by tight cicatrix over the bone and spasms, probably from one or more nerves having been included in ligatures. A few cases of hospital gangrene were shown me by Dr. Kramer, who remarked that the disease had always been very prevalent in the hospital until the last eight years, that within that period none had occurred until those I then saw, the change being attributed by him to want of cleanliness and ventilation. Upon the whole, however, it struck me that *La Charité* was as well managed as any hospital I saw in Germany—the rooms being

lofty, the walls and floors clean, the windows large, the beds and iron bedsteads comfortable and neat as possible.

From the hospital I rode to the residence of Mr. *Donnelson*, the American Ambassador, handsomely situated in the *Wilhelm Strasse*, one of the finest streets in Berlin. He received me very kindly, as he does all his countrymen, and gave me much information respecting the city and its institutions I could not easily have obtained from other sources. I found him, as I entered his study, surrounded by a large law library, and deeply engaged in poring over some of its contents, saying that he occupied his leisure hours in that way, in order, when he returned home, that he might be the better fitted to re-engage in the duties of his profession, of which he was naturally fond and ambitious of obtaining distinction in—a remark corresponding with one made to me by the late celebrated William Pinkney, of Maryland, whilst ambassador at the Court of St. James, London, where, it is well known, he employed himself to great advantage by studying law and by attending constantly, for several years, the English courts and Houses of Parliament. Mr. Donnelson I soon found to be a thorough American in all his views and sentiments, honestly believing that there is no such country in existence, that she is a thousand years in advance of Europe in intelligence, in civilization, in political institutions, in comforts, in morals and religion, in every thing except luxuries and show. In proof of the correctness of his sentiments, too, he informed me that many of the great men of Prussia had acknowledged to him our superiority, while they lamented the changes their own language was undergoing in our extended country by being amalgamated with or absorbed by the English, a fact substantiated beyond all doubt by the recent return of missionaries sent to inquire as to the fact and their report confirmatory of it, and acknowledgment that they had great difficulty in conversing with and comprehending the naturalized and American-born Germans. He also remarked, that the great writers of our country were receiving their due amount of praise; that *Humboldt* had remarked to him a short time before, there was no such historian as *Prescott*, that *Ranke* was nothing to him, that he had one merit above all other historians he had ever known or read—of being entirely free from *prejudice*. He added that *Humboldt* was almost worshipped in Prussia, and was second only to the king. From what I learned from other sources he might have said next to Lord Westmoreland, the British Ambassador; for all Berlinians pay to him, and, indeed, to most Englishmen, extraordinary homage and court. All the upper classes, indeed, it was easy for me to see, are accustomed to truckle and pander to wealth, and, seemingly, to yield

up their independence to aristocracy and to military rank, so much so that the greatest intellectual men would probably feel disposed to yield the palm in favour of very inferior personages who might happen to wear a pair of large epaulets on their shoulders. Upon being asked, upon one occasion, in company of a knot of savans, if I had seen the king, and replying I had not, they all expressed great astonishment. I could not avoid adding, that my object in visiting Berlin and other parts of Germany, was to see and talk with *intellectual* kings; that I would rather see Humboldt, and Muller, and Liebig, and Tiedemann, and Gmelin, and Henley, and Chelius, and Dieffenbach, than all the kings and princes that ever existed, after David and Solomon, down to the present time; that from all I had ever heard of their king and of his excellent parents, I could not but feel the highest respect for him, but that Americans worshipped the aristocracy of *intellect* and not of *rank*; and so long as that species of worship should last they might expect to find them visiting Europe in greater numbers than they had hitherto done. They all then assented to my propositions, but nevertheless maintained, it was necessary for governments like theirs to have an aristocratic head, whether that head was filled with brains or not, more especially as such a head could always procure the brains of others when it happened not to have them itself. What again struck me as an anomaly in their large town of four hundred thousand people was, that although so much devotion was paid to wealth and rank, yet every one seemed equally well dressed, and so independent in his bearing as to speak and act before his superiors as if they were equals. The servants at the hotels, the hackney coachmen in the streets, were all lords in their own estimation, and possessed of this consciousness were polite and condescending in the extreme. What was equally puzzling, little or no business seems to be transacted in the place, and yet few if any beggars were to be seen, and every one seemed to live in abundance and at ease.

I regretted very much that during my stay in this capital several objects of interest escaped my observation, among the rest an institution for the instruction of *idiots*, chiefly through the medium of music and of great perseverance on the part of the principal and his assistants in various other novel ways, by which they had been able to accomplish almost miracles. With Mr. Donnelson and his agreeable family I rode to the establishment, for the purpose of witnessing the wonders said to have been achieved by ingenuity and skill upon this pitiable portion of the human race, but was unfortunate in not being able to get access at the time to its inmates. The galleries of pictures, too, public and private,

for which Berlin is not very celebrated, I had merely the opportunity to run through cursorily, and, therefore, cannot speak particularly of their merits, with the exception of a few fine specimens by *Rubens*, *Rembrandt*, *Teniers*, *Vandyck*, *Corregio*, *Poussin*, and others. The *natural history museum*, like the anatomical, is contained in the university, and is very extensive and valuable, especially the ornithological collection. It is not to be compared, however, either in the number or preparation of its birds, with that belonging to the *Academy of Natural Sciences* of Philadelphia. One of the most interesting establishments in Berlin is the *iron foundry*, situated in the suburbs, where the most beautiful specimens of every description, including statues of men, animals, and busts are made. The whole town is full of articles manufactured there, and the displays of them in the shop windows very imposing. At the manufactory, also, of *Methlow & Co.*, in the *Neue Schonhauseur Strasse*, the most beautiful articles, especially picture frames, are made of stone or clay, so durable from its composition as to resemble iron in appearance and quality.

At the appointed hour, according to promise, I got into a *droshki* and rode to *Dieffenbach's*. He received me, as before, in his peculiarly gracious, animated way, by running rapidly towards me with uplifted hands, and then turning as suddenly, and presenting me individually to the assembled guests—a formality very unusual on the continent where introductions are considered unfashionable and in bad taste—apologizing afterwards for so doing by saying I was a stranger and the others, five or six in number, his intimate friends, with whom he could take such a liberty. I found them all very agreeable, especially *Madame Dieffenbach* and a Swiss Countess, a very fine looking widow of middle age, with whom she had been acquainted from childhood, being herself a Swiss and born in Geneva, where her friend the Countess resided; which circumstance, perhaps, accounted, in a measure, for the fascinating qualities displayed by both. In addition to *Muller* there were present a *Dr. Bedan*, a surgeon in the Egyptian navy, a tall, fine looking, intelligent man, whose acquaintance I had previously formed in London through *Mr. Liston*, and two other medical men of Berlin, whose hard German names I could neither write nor pronounce—all of them, however, extremely civil and well informed, and adepts in speaking the English language. But *Dieffenbach* himself was the life and soul of the company. There he sat, speaking for my accommodation, his broken English, so deliberately yet so quickly and queerly, with so much gravity commingled with so much fun and drollery, as to keep us all, incessantly, upon the *qui vive*, and to give rise, alternately, to silent solemnity and

peals of laughter. His memory for events long passed seemed to be very perfect: and he appeared to remember with equal distinctness every one he had ever met, even casually, within the last ten years. Do you know, said he, Dr. M—— of Philadelphia? Certainly, said I, he is one of our most respectable physicians, largely engaged in practice. Ah, he replied, that chap and myself were well known to each other in olden time. We danced together and ate together and fenced together, but although he was younger than myself, I could beat him all hollow at the last exercise because I was quicker on my feet and more active all over, whilst he was heavy built and more like a Dutchman than a German. Fencing, he continued, has been my great pastime and yet I never got a scratch of any account because I was small and active, whilst I have often made the blood fly from many a fellow's face twice my size. Depend upon it little men are the best men for most purposes after all. The blood circulates in them with more rapidity and their minds and bodies are the more active for it. Napoleon was a little man, so was Alexander the Great. I can dance yet. Madame la Contesse knows that and so does my wife. Tell M—— he ought to come back and look up all his old friends and acquaintances at Königsburg and other places, and see how much we have all changed for the better since he left. And so he ran on during the whole of the dinner, and yet his incessant talking did not prevent him from eating and from helping others. Mr. Donnelson had previously told me he was glad to find I was going to dine with Dieffenbach, for he lived like a prince, and was particularly *recherché* in all that concerned his table and the quality of his liqueurs. This induced me to pay more attention than I otherwise should have done to the viands, the order of their coming on and their quality. The table was circular—just large enough to seat six or eight persons comfortably. Soup, exquisitely flavoured, without apparently a particle of grease in its composition, but a nondescript to me, first made its appearance; then apricots as large as a Jersey or Delaware peach, with strawberries of every size and variety; then *sturgeon roe* from Russia, red as crimson and delicious, not from the common sturgeon as *Muller* informed me, but a particular species highly estimated all over the north of Europe, and very costly; then fried sole, à la Vénitienne; then the *sandra* or pike perch, the greatest delicacy in Berlin; then excellent roast beef and potatoes; then veal cutlets, à la financière, with small young green peas; then snipe and woodcock, garnies de truffes, with choux fleurs and choux de Bruxelles; then salade and fromage de Roquefort; then Charlotte Russe and ice cream; afterwards several incomprehensibles mixed

up with delicious fruits, and some of the best Moselle, Burgundy, Madeira, Johannesburg and Stein wines to be found in Prussia.

The ladies having retired, then the discussion of medical and surgical subjects commenced. Then the active little man bestirred himself more than ever, and began to tell me of his chirurgical exploits—how he had operated for strangulated hernia seven hundred times, for calculus without number, for aneurism in the same proportion, for strabismus oftener than he could remember. Then I ventured to say they accuse you in England, France, America, and other countries of operating too much. “It is very natural they should,” he replied, “because they don’t know how much I have to do; that there are four hundred thousand people in Berlin, four hundred and fifty physicians and surgeons and only seven or eight employed, and but two or three hospitals, so that my hands are full from morning till night, from the town alone, independently of people from the surrounding country, and strangers that come to me.” I said, “do you know that I performed the operation of strabismus four or five times before you?” His reply was, “do you know that neither of us are entitled to priority, but that the Chevalier Taylor in England performed it thirty years before any one else?” I confessed my ignorance, and started him upon another theme, when away he went, characteristically, at full speed, upon the benefits of *Ether*, saying he had employed it to an immense extent, without injury, then rang the bell for his book on the subject and made me a present of it. In this way various subjects were discussed so circumstantially and minutely as to render it impossible to recount the fourth part of all that was said. One by one the company dropped away, and being only ourselves left, he said, “there is still light enough left to show you my stable, horses and carriages; these are my hobbies, come along and see them.” I found six horses and carriages all imported from England, among the rest the large grey mare that I had previously seen flying at full speed through the streets. After thorough examination I could not help thinking here is my friend Crampton of Dublin over again, with his cobs and hunters and man John, all in short but the bull pup and the tremendous leaps over hedges. I said, “is this a common taste in Berlin?” “Oh yes, he replied, every physician likes his horse, but every one won’t pay for it. I go to the right country and market to get them and suffer for it, so far as money goes; but what of that, why should I care about expense, I have only Madame Dieffenbach and my beautiful girl and boy to take care of, and if I leave them enough, which I hope to do, why may I not indulge my fancies, especially when they are connected with my vocation and help me to pocket a few odd thousands?” We returned to the parlour

where we found the ladies over a cup of Mocha, a la Parisienne, when the Countess said, "I have a son of twenty who wishes to go into the army and is enamoured with what he reads about the victories of your countrymen in Mexico. Would it be possible to get him a place, were it only as an amateur?" I told her it was quite possible, but if she took my advice she would suffer him to remain in Switzerland, rather than encounter the savage guerillas of that country, who were governed by no honourable principles in their warfare, and above all that his chance of meeting with an untimely end would be far greater from the pestilential climate than from its inhabitants. "Ah," she exclaimed, "he is my only child. I believe you are right." After an hour's conversation with these interesting and most accomplished ladies, I took leave of them and of my friend Dieffenbach, hoping to hear for years to come of their good health and prosperity. But alas! how short and uncertain is the frail tenure of human existence, and how dream-like all our anticipations of the future! Two short months only passed away and the sad tidings reached me of the death of the great surgeon. He expired in his hospital, in the midst of his lecture, surrounded by his pupils and patients, almost without a moment's warning, from apoplexy, in the very place, no doubt, he could have wished—with his harness on. About the same period, too, another great man, the *Dieffenbach* of Britain, was doomed to perish in the height of his usefulness and fame, nearly under similar circumstances—from aneurism of the aorta bursting into the lungs with sudden and disastrous result. I allude to the lamented *Liston*.

In endeavouring to recall to memory some one whom Dieffenbach, the great surgeon and most estimable, kind hearted man resembled in personal appearance—always the best mode of holding a friend in remembrance—I can think of no one so closely approaching him in figure, size, expression, walk, talk and manner as a talented and worthy legal gentleman of this city—*J. A. P., Esq.*

I cannot take leave of Berlin and its interesting institutions without remarking, that it seems almost incredible that a flat sandy desert, surrounded for hundreds of miles by an equally sterile country, should ever have been pitched upon, even by an eccentric old monarch, as the site of an important city, and that such city should ever become, without commerce, and merely from court influence, one of the largest and most magnificent in Europe. This is more remarkable as building materials are brought from an immense distance. It is true most of the houses are of brick, but so beautifully rough-cast and ornamented as to resemble the finest stone. To say nothing of the immense *Palace*, the *University*, the *Opera House*, the *Arsenal*, the *Guard House*, the

Museum, the *Colossal Statues*, the *Cathedrals*, one's time would be amply repaid by close examination of the *Brandenberg Gate*, situated at the extremity of *Linden Street*, considered the finest architectural specimen of the kind the world contains—not excepting its model the *Propylæum* at *Athens*. The car of victory, which adorns its summit, was taken by *Napoleon* to *Paris*, but restored after the battle of *Waterloo*. To mitigate the mortification of its removal, the *Prussians* presented the Goddess, after her return, with the additional emblems of the *Iron Cross* and the *Eagle*.

LECTURE III.

GENTLEMEN :

At half-past six in the morning, on the ninth of August, I left *Berlin* in a train of magnificent cars for *Hamburg*—passing through a flat, dreary waste of sand, a few scattering villages and a sparse population—and reached my destination at half-past three in the afternoon. *Fricke* the great surgeon being dead, and *Oppenheim* almost the only eminent medical man in the place, I could not afford to remain longer than to see a few striking objects of interest, such as the beautiful boulevards and flower gardens surrounding the town, and to enjoy the fine rides and views about *Altona* and along the banks of the *Elbe*, dotted with country seats belonging to the rich merchants of both these celebrated marts of trade. My curiosity being sufficiently gratified, I took passage the next day in the steamer *William the First* for *Amsterdam*, distant from *Hamburg* about three hundred and fifty miles. This, like most other steamers and vessels that ply between northern European ports, was strong and admirably constructed, moved rapidly, was beautifully fitted up in the cabins with mahogany and maple, and measured about seven or eight hundred tons. In a few hours we passed *Cuxhaven* at the mouth of the *Elbe*, where a large fleet of vessels from all countries lay at anchor performing quarantine. The passengers on board, twelve or fifteen in number, were mostly intelligent German, French and Russian gentlemen, who spoke English and made themselves very agreeable. Among the rest was a remarkably handsome, fine young man, grand nephew of the celebrated Barclay De Tolly. Some of these passengers finding I was acquainted with relatives and friends of their's in the United States, showed me great civility, and after our arrival in Holland were very instrumental in facilitating my views. Although I had repeatedly crossed the Atlantic, I now, for the first time in my life, experienced sea sickness, owing to the rough and peculiarly short waves which agitate the surface of the boisterous Nord and Zuider Zee, and, perhaps, to the construction and singular but indescribable motion of the vessel itself. I had long entertained the erroneous notion that I could not, under any circum-

stances, be made sea-sick, my theory being that such malady depended, chiefly, upon the mind, and that it was only necessary to resist to prevent or overcome the evil. Finding myself sadly mistaken, and bound to acknowledge that my speculation had been demolished, it only remained to bear as composedly as possible the mishap, and to endeavour to comfort my fellow voyagers by assuring them there was no remedy, and that I was really as much nauseated as themselves,—an assurance which seemed to afford most of them internal satisfaction, upon the principle, no doubt, that those accustomed to administer, professionally, to the misfortunes of others, ought, as a matter of justice, to have an occasional taste of the drugs furnished, and a touch of the distempers to be endured. Indeed I myself had long entertained the same opinion so far as surgery was concerned, and often felt inclined to think that every operator ought to be compelled to shave with his own scalpels, and not only so, but to have a few of those incisions practised upon him, now and then, which he is often so fond of executing upon other people—a practice which I am very sure, if ever introduced and fairly carried out, would limit, amazingly, that itch for the knife which has so long usurped the place of medical surgery and sound sense.

After being tossed to and fro for forty-eight hours, with an occasional detention by getting aground in the *Zuider Zee*, we reached *Amsterdam* late in the night, and took up quarters at the *Hotel des Pays-Bas*—renowned for its comfortable beds and the excellence of its cuisine. The next morning, after a comfortable breakfast, consisting of substantials and delicacies peculiar to the place, I sallied forth, under guidance of a commissioner, to explore the nooks and corners of a city built, as it were, upon the tops of trees, that is upon millions of piles driven in the mud and sand to the depth of seventy feet. I could not avoid thinking how very insecure such a foundation must be when I perceived hundreds of houses in every part of the town cracked and twisted from subsidence of the piles, and ready, seemingly, to fall into the narrow streets. And yet few if any accidents of the kind have happened; nor is it common to hear of inundation to any extent, owing to the high and immensely strong dykes and flood-gates which enclose the town, placed considerably below the level of the sea, and therefore liable, if these barriers should give way, to instantaneous submersion. The cleanliness of *Amsterdam*, containing upwards of two hundred thousand inhabitants, and, indeed, of the whole of Holland, is utterly inconceivable, the houses inside and out being as bright and shining as polished metal, and the streets and pavements as free from dirt or speck as the drawing-rooms of most houses in other parts of the world.

Even the cow-sheds and stables are clean and fragrant as an English cottage, and their inmates as sleek in their coats and tidy in their appearance as if the wisp and brush were plied from morning till night. And yet the olfactories are assailed in every direction by emanations from the stagnant scum-covered canals which intersect the town in every quarter, and are perpetually stirred up by the poles and oars of the numerous craft incessantly moving and lifting pestiferous mud from its slimy bed. Under such circumstances accurate ablution and incessant scrubbing become operations of vital importance, for without them fevers and other diseases of the most pestilential and frightful character must be the inevitable result. With every precaution, indeed, it is impossible to avoid calamities of the kind, and the whole of Holland is therefore proverbial for the frequency and severity of its malignant epidemics as well as the continued prevalence of mild intermittent and bilious fevers. And yet apparent full health, fine ruddy complexions, and stout figures are predominant characteristics of the inhabitants, so much so that the very drudges who, with their short petticoats and wooden shoes and brooms reaching to the house tops and large buckets of water are everlastingly rubbing and scrubbing walls and pavements and splashing pedestrians, are as sturdy, muscular, healthful, rosy looking wenches as are to be found on the face of the globe.

Amsterdam, Leyden, Utrecht, Gronningen, Middleburg, and indeed the whole of Holland, so famous in former times, when a free country, for literary and professional men, so justly proud of the names of Erasmus, Meursius, Johannes Secundus, Paul, Merula, Grotius, Dousa, Heinsius, Vossius, Hoogeveen, Boerhaave, Swammerdam, Gaubius, Ruysch, Albinus, Camper, Sandifort, Van Doeveren, and a host of others, can now boast of few men of much celebrity either in the arts or sciences. Mulder, it is true, the great chemist of *Utrecht* and the rival of *Liebig*, is making strenuous exertions, so far as his own department goes, to redeem the retrogression of his country, whilst *Vrolick* of Amsterdam, in anatomical and pathological investigation bids fair to equal, in some respects, even the great *Ruysch* himself, the prince of anatomists, in all relating to minute injection and display of the different vascular systems, an art carried by him to an astonishing degree of perfection, whilst professor of anatomy an hundred and eighty years ago in the same town, and if not absolutely lost, only recently revived to full extent by Hyrtl and Berres, the present celebrated anatomists of Vienna.

Knowing the high reputation of Dr. *Vrolick*, I could not think of leaving Amsterdam without seeing him. I called, accordingly, without

an introduction, and was received with great politeness and shown every civility during my stay in the town. After consuming an hour in looking over his library and in examination of his works on the Chimpanzee and on Pathological Anatomy, I accompanied his son to a large building containing his anatomical cabinet, commenced more than fifty years ago by the grandfather of the young man, who is still living and engaged, I believe, in practice. The two cabinets now conjoined constitute a very fine collection, particularly rich in comparative anatomy, especially skeletons of various quadrupeds and fish. The specimens of morbid anatomy are also very numerous and admirably put up, and are all as clean and white as the houses themselves, more particularly the bones. This will be considered no small praise by one acquainted with the appearance of a Dutch house or housewife. Indeed I think it very probable that most if not all of the preparations were put up by women, inasmuch as I found the museum at Bonn under care of a woman who pointed out to me all the most remarkable specimens, with the history of which she seemed very familiar. The same thing afterwards occurred at Leyden. After remaining sufficiently long in the museum to make myself acquainted with its contents, I repaired with young Vrolick to St. Peter's Hospital, a large very old-fashioned building, extremely clean and not over crowded with patients. Here I saw some fractured limbs treated upon the principle of Suetin, whose apparatus is universally employed, I understood, in Amsterdam and most other parts of Holland.

My next visit was to the *Royal Museum of Pictures*, consisting almost exclusively of Dutch masters, some of them unsurpassed for beauty and excellence of finish and expression. At the head of them is placed by universal consent the magnificent picture by *Van Der Helst*, containing twenty-five portraits of the civic guard of Amsterdam assembled to celebrate the treaty of general peace concluded at Munster in 1648. There are, also, two or three capital Gerard Dows, one representing a night school; five good pictures by Berghem, two by Cuyp, a dying Christ, and a portrait of Vanderborcht by Vandyke, two by Govert Flink, a portrait by Frank Hals, eight superb pictures of flowers, plants and dead game by Hondekoeter, three or four fruit pieces by De Heem, an excellent still life by *Kalf*, the exact size of one in my possession brought from Amsterdam thirty-five years ago by James McMurtrie, Esq., of this city, corresponding with it in date, and probably painted as a match; four *Lingelbachs*, two *Netschers*, eight by *Mierrevelde*, an admirable *Van Os* representing fruits and flowers, two Ostades, two Rembrandts, four by *Paul Potter*, three by *Teniers*, of exquisite

finish, eight by *Jan Steen*, all of them very superior, six by *W. Van De Velde* of the finest description, three by *J. Weenix* of unsurpassed touch and finish, nine by *Wouverman* of uncommon merit, three by *J. Wynants* in his best manner, two of dead game by *Snyders*, each excellent, five by *Schalken*, one, representing *William the Third*, of uncommon merit, two by *J. Ruysdaal*, both capital, especially the *Cascade*, besides many others it would be impossible to designate.

After a peep into the other principal public buildings, such as the *Palace* or *Stadhius* the *Female Spin House* or *House of Correction*, in both of which there are some fine pictures by *Wapper*, *Rubens*, and *Vandyke*, into almshouses for old women and men, and a visit to the docks, ship yards, the principal shops, and streets containing the splendid private dwellings of the rich merchants, not forgetting the old churches and cathedrals, few of which, however, as architectural objects, are worthy of notice, I took leave of *Amsterdam*, by railroad, reached *Harlem* in forty minutes, remaining long enough to examine the luxuriant flower gardens, cultivated grounds, beautiful country seats in its vicinity, including other objects of curiosity or interest, and then repaired to *Leyden*, only eighteen miles off.

How bright, how glowing the associations that crowd upon the mind of the literary, the scientific, and the medical man as he enters this ancient and venerable town, beseiged in 1573 by the Spaniards under the heroic *Valdez* but defended with equal bravery by *Vanderdoes* and the combined determination of its inhabitants, who though prostrated by famine and pestilence still refused to surrender, and as a reward for their sacrifices and sufferings, received at the hands of Divine Providence effectual relief through storm and inundation, which demolished the hostile ramparts, and buried in a watery grave the soldiers and scattered in every direction the Spanish fleet—affording, at the same time, the opportunity to the *Prince of Orange*, by a favourable wind and tide, to approach with his flotilla and supply every want. In consideration of the noble defence thus made, the Prince gave to the inhabitants the choice of two favours—the exemption from taxation, or the establishment of an University. To their honour, they accepted the latter privilege, and soon realized the advantages therefrom, by the celebrity speedily acquired by the institution, and by the crowds of pupils attracted to *Leyden* from every part of Europe, among them some of the most distinguished men in every department of literature and science the world has ever known. To say nothing of *Arminius*, *Scaliger*, *Descartes*, *Haller*, *Salmasius*, *Goldsmith*, the great and good *Boerhaave* himself, might be considered a host admirably calculated by intellectual endowment, by education, by

varied and most extensive learning, to support the reputation of an University carried in his time to the very summit of renown. When we add to these qualifications the moral attributes assigned to him by his pupil *Haller*, who remarked, "Some, though few, will rival him in erudition; but his divine temper, kind to all, beneficent to foes and adversaries, detracting from no man's merits, and binding by favours his daily opponents, may, perhaps, never be paralleled;" and, again, when we find another friend speaking of him in these terms, that "In his conversation he was easy and familiar, and in his demeanor grave and sober, but at the same time disposed to pleasantry and occasionally indulging in good-humoured raillery; so that he was compared to the admirable Socrates, whose bust he is also said to have resembled in features; that by his pupils, whom he regarded with the kindness of a parent, he was beloved and respected in a very high degree; that piety formed a distinguishing feature of his character, and that devotion was his daily exercise." Surely we have a right to say the memory of such a man deserves to be cherished!! And so I found it; for every one spoke in the most exalted terms of the great Boerhaave, of the pious Boerhaave, of Boerhaave the skilful physician, of Boerhaave the chemist, of Boerhaave the botanist, and all were ready to show his monument, to walk with you to his country seat and his botanic garden, where he passed the latter years of his life, and planted for posterity. These monuments of his greatness and his glory could I pass by unseen? The garden is large and contains a great variety of useful and ornamental plants, all of which are kept in the best order. Some of the trees were planted by the hand of Boerhaave himself, and are still vigorous and flourishing. In his 67th year he writes to his friend and pupil, Dr. Bassaud, thus: "My health is very good. I sleep at my country house. I go to town every morning by five o'clock, and I occupy myself there from that time until six in the evening, in relieving the sick. I understand chemistry; I amuse myself in reading it; I revere, I love, I adore the only God! When I return to the country I visit my plants; I acknowledge and admire the presents with which the liberality of my friend Bassaud has enriched me. My garden seems to be proud of the variety and strength of its trees. I pass my life in contemplating my plants; and grow old in the desire of possessing new ones. Amiable and sweet folly! Thus riches only serve to irritate the thirst of possession, and the miser is miserable from the liberality of his benefactor. Forgive the madness of an old friend, who wishes to plant trees, the beauty and shade of which will be destined to give delight only to his nephews. It is thus my life passes, without any other chagrin than my

distance from you, and happy in every thing else." The monument to the memory of Boerhaave is placed in the Church of St. Peter at Leyden. On a pedestal of black marble is an urn, adorned by figures expressive of the four ages of life and of the sciences in which he was an adept. The head of Boerhaave is represented on the front of the pedestal, and beneath it suspended his seal on which is cut the motto "*Simplex sigillum veri*," (simplicity the seal of truth,) and below it, "*Salutifero Boerhavi genio*," sacred to the health-restoring genius of Boerhaave.

Who has ever beheld the magnificent folio volumes of finished engravings representing the combined cabinets of Sandifort, Rau Albinus, and Van Doeveren, without wishing to inspect personally the specimens from which they were taken? The greater part of these, if not the whole, are still contained in the anatomical and pathological museum of Leyden; and to get access to them I first called upon the professor of anatomy, Dr. G. Sandifort, son of the author of the work referred to. He was at home, but in bed ill of fever, and I could not therefore see him. Very kindly, however, he put me in the way of having my wishes gratified by directing me to the curatrix of the museum, a lively, stirring, middle-aged little woman, who seemed to know the history and value of every specimen, and took great pains and pleasure in expatiating upon their merits. Many of them I recognized at once from my familiarity with the engravings. Some of the fifteen hundred and forty-seven calculi *said* to have been removed by Rau without losing a single patient were there, but most of them I examined were labelled with the name of Bonn. One very curious one removed by a blacksmith from his own bladder by a kitchen knife, is deposited among the collection, hooped with iron, and attached by a chain to the knife which relieved it from its imprisonment. Another very singular specimen was also pointed out to me, in which a calculus six inches long, weighing eight ounces, was discharged by sloughing through the perineum of a boy nine years of age, who had been twice previously lithotomized. Some of the injected preparations formerly belonging to Albinus are very fine, as are those of the late Professor Sandifort. Upon the whole, however, the collection is not equal either in arrangement, quality, or extent to several in Germany, and as regards finish and putting up, is decidedly inferior to that of *Vrolick* of Amsterdam. Indeed many of the *Leyden* specimens, more especially the skeletons and individual bones, are imperfectly bleached, and some of them black and greasy. The lecture room formerly used by *Albinus* as an anatomical theatre, is still employed for the same purpose. It is very well arranged, but not capable, seemingly, of containing more than one hundred persons.

How the large classes, so common in his time, were accommodated, it is difficult to imagine. The anatomical museum and theatre, as well as the rooms for practical anatomy, are all contained in a building distinct from the university, but in its immediate vicinity. The university is a large old-fashioned brick building, composed of every order of architecture, and has a very heavy, gloomy aspect. Even in the time of Mrs. Radcliffe, who speaks of it in her journey through Holland, it was far from imposing. There are only four or five professors belonging to the medical department—G. *Sandifort*, who lectures during different months of the year, at distinct intervals, on anatomy, on physiology, on comparative anatomy, on dissections—J. C. *Broers*, on the principles and practice of surgery, on clinical demonstrations in the university hospital, on surgical operations, on the principles and practice of obstetrics, and forensic medicine—C. P. *Vanderhoeven*, on pathology, on the practice of physic and clinical medicine, and on the history of medicine—G. *Suringer*, on general therapeutics, on pharmacy and the natural history of medicine, on the use of therapeutic remedies, and on medical and clinical practice. These different courses occupy the year, with exception of the month of August, the time of my visit to *Leyden*, when the classes were dispersed, and most of the professors absent. Consequently, I did not see them. The medical pupils seldom exceed seventy or eighty in number, and are said to be, for the most part, moral, intelligent young men. The whole number in the university, including students of divinity, law, mathematics, physics, philosophy, humanity, and medicine, natural history and botany, amounts generally to four hundred, part of whom are from the different districts and towns of Holland.

The museum of natural history at *Leyden* is very rich in specimens—particularly in birds, which are very numerous and admirably preserved. Those collected by Professor *Temminck* are extremely valuable. The *Japanese Museum*, also, belonging to Dr. *Siebold*, is very extensive and interesting. The same may be said of the cabinet of *comparative anatomy*. Upon the whole *Leyden*, although deteriorated in literary and professional reputation, compared with the pre-eminence enjoyed in the palmy days of Scaliger, Boerhaave, Campër, Albinus and others, is still an interesting town, containing large and splendid edifices, public and private, numerous book stores and well furnished shops, and beautiful promenades on and about the Rhine, which nearly encircles the town previous to discharging its flood of waters into the sea.

Between *Leyden* and the *Hague* there is a free communication by railway—the cars leaving five or six times a day, and reaching either

destination in an hour and an half. The latter being the most beautiful city in Holland, both as regards situation, and the number and magnificence of its public and private edifices, and equally celebrated for the excellence of the society, native and foreign, there concentrated by the attractions of the court and nobility, I was particularly desirous of forming its acquaintance, the more so, from being fully aware that it contained the finest collections of Dutch pictures in the world. Upon reaching the station, a mile from the city, I took a cab and drove at once to the *Hotel Bellevue*, the best in the place, directly opposite the Park, and kept by a most obliging and gentlemanlike Scotch landlord, Mr. Maitland. There being no medical institutions here, and no medical men of distinction to hunt up, the greater part of my time was devoted to the arts, commencing with the *Museum and Gallery* of pictures, consisting almost exclusively of the finest Dutch masters. The picture which first arrested my attention is a very celebrated one by *Rembrandt*, in which Professor *Tulpius* is demonstrating to seven of his pupils the dissected muscles of the forearm. Every figure is perfect, and each countenance so expressive of interest in the lecture and of apparent desire to obtain minute knowledge of the anatomy of the parts displayed as to astonish the beholder. The colouring of the dead body, particularly the flesh, is inimitably true to nature, and the drawing uncommonly correct. The picture formerly belonged to the corporation of Surgeon's Hall, Amsterdam, and was purchased a few years back by the king of Holland for fifteen thousand dollars. A fine copy of it hangs in the Hall of the Academy of Medicine of Paris. But the picture most admired of all in the collection, is "*le Jeune Taureau*," or the young bull, of full size, by *Paul Potter*. On the same canvass are represented a cow, a sheep and a herdsman. Nothing can be finer than this splendid specimen of art, the value of which has been estimated at twenty-five thousand dollars. It was removed, among other pictures, to Paris, by order of Napoleon, to whom an offer was previously made by the government of Holland of one hundred thousand dollars if he would permit it to remain at the *Hague*. It is considered the chef d'œuvre of Paul Potter, and its value is much enhanced by the figures being of natural size. All modern artists of the Dutch school accustomed to paint animals, have selected the *Young Bull* as their model; and this will, in a measure, account for the success they have met with, especially in the extraordinary relief given to their figures, which generally stand out from the canvass as if they were alive. Two landscapes by Potter in the same room, both containing cows and one of them pigs, are likewise admirable specimens of art. The best artists of the Dutch school, dis-

tinguished for the excellence of their cabinet and conversation pictures, are Teniers, Rembrandt, Gerard Dow, Jan Steen, Brouwer, Ostade, Terburg and Mieris. Of each of these it is impossible to conceive finer specimens than are contained in this gallery. The same may be said of the cattle pieces and landscapes of Wovermanens, Ruysdaal, and Berghem; of the sea pieces by Vandervelve and Backhuysen; of flowers by De Heem, Breughel, Rachel Ruych—daughter of the great anatomist—and Vanhuysum; of dead game by *Weeninx* and *Hondekoeter*. The master pieces of the whole collection, with exception of the Young Bull, were described minutely by Sir Joshua Reynolds in “A Journey to Flanders and Holland,” in the year 1781, just sixty-seven years ago; and yet each picture occupies the same situation it did then, when the gallery belonged to the Prince of Orange, and still seems to be in the most perfect state of preservation. Those interested in such subjects will derive the greatest pleasure from perusing the remarks of Sir Joshua, even without seeing the pictures. It may be easily conceived then, how pure and unalloyed must be the gratification of reading of and beholding these objects at the same moment. The Chinese and Japanese museums, contained in the same building with the gallery of pictures, are both well worthy of close examination. The king of Holland, being a great amateur and patron of the arts, has collected around him some very choice pictures, not only of the Dutch but of the Italian and most other schools. These are exhibited in a large and very splendid gothic hall, which is open to visitors daily. The principal pictures of the old masters are by Rubens, Vandyke, Rembrandt, Holbein, Ruysdaal, Velasques, Raphael, Titian, Leonardo da Vinci and Both. The modern pictures are chiefly Flemish and Dutch, and mostly by Verbœckhoven, Ommegank, Gallait, Gudin, Dykmans, and all of them uncommonly fine. After long and close examination of all these splendid specimens of taste and design, I rode with a friend to the “*Maison du Bois*,” or chateau of the king, situated in the Park, about a mile and an half from town, passing through noble avenues of magnificent trees, chiefly beech, most of them two or three hundred years old, so lofty and wide spreading as to resemble an American forest in all its primitive grandeur, and the thick impenetrable shade and even gloom which characterize “the pathless woods” of the interminable regions of our western hemisphere. The *Chateau* is of brick, small, dingy, and insignificant, and, if remarkable at all, only for the circular hall which contains numerous large pictures by Van Tulden, Jordœns and Honthorst. These are painted on the walls, and represent various allegorical subjects, such as triumphal entries, Vulcan at his Forge, &c. Before leaving

the Hague I took the opportunity to call upon some of the modern painters residing in that city, and among the rest upon *Backhuysen*, well known in this country by some spirited pictures of animals. He is considered both in Holland and Belgium as a clever artist, as many of the small pictures politely shown to me proved, but inferior in most respects to Ommeganck, Verbœchoven and Robbe.

My next visit was to *Rotterdam*, only a few miles by rail road from the Hague. It so happened that an annual fair was held in the city on the day of my arrival—the 14th of August. The whole population, consequently, was in a state of fermentation, and the streets crowded with strangers and people from the adjacent country and villages. In most of the principal squares and streets booths were erected, upon the platforms of which stood mountebanks of various descriptions all engaged in exhibiting tricks of legerdemain, while the numerous public gardens were filled with men and women, mostly servants, who were either eating and drinking at tables, or listening to music or farcical speeches delivered by strolling players. The whole atmosphere being insufferably loaded with compound villanous smells of tobacco and gin, I was glad, after having satisfied my curiosity, to escape from the pestiferous multitude and to betake myself to the more quiet and respectable shops temporarily erected along the quays and docks for the exposition and sale of various manufactures and commodities, some of them, to the eye of a stranger, very unique and curious. Under guidance of a respectable commissioner I afterwards visited most of the public buildings, the docks and shipping, a new and commodious hospital, the bronze statue of *Erasmus*, not remarkable for grandeur or proportions, but very expressive in the countenance of talent and benevolence; looking, also, into the house where he was born, situated on the *Kirk graat*, or narrow street, leading to the *Cathedral of St. Lawrence*, which contains an organ nearly equal in size and tone to that of Harlem. Rotterdam, as a commercial town, which it altogether is, is superior, in some respects, to any other in Holland, being situated on the Maas, a rapid river, deep enough to receive the largest ships, and by its current calculated to obviate those stagnant accumulations in the docks and canals so conspicuous and unwholesome in Amsterdam, Leyden, and even the Hague. The houses of the rich merchants are, many of them, very large and commodious, and the hotels equally so. That of the "*Pays Bas*," kept by H. F. Walter, a most civil and obliging landlord, is situated on a beautiful quay called the *Boomjes*, and is considered the best in the city. Directly opposite the door may be found, at all times, some of the fine steamers that ply between Lon-

don and Rotterdam, immense Dutch East Indiamen, and American and English vessels of the largest class. The *Maas*, for a mile and a half along this quay, bears a strong resemblance to the Delaware, at Philadelphia, with the exception of being narrower. Even Smith's Island and the opposite Jersey shore, come in to form a part of the picture.

Before leaving Holland I was extremely desirous of seeing *Broeck*, celebrated as the cleanest village in the world, and so remarkable for the strictness of its discipline as regards dirt, as to oblige every equestrian to dismount and lead his horse through the streets, and not only so, but to compel every one upon entering a house to pull off his boots and walk over the carpets in his stocking feet. Above all I was anxious to see and examine the stables of the village where the tails of the horses and cows are tied up to the ceilings to prevent them from being soiled by manure, and their sides so polished as to resemble a waxed table. My time, however, was too limited to permit the excursion to be made, nor could I see, for the same reason, the village of *Permerende*, in whose vicinity are to be found the most luxuriant meadows and the best cows and dairies in Holland. But as the whole country may be considered a rich meadow, I could not fail to observe in every direction as I rode along, immense herds of the peculiar jet black cattle with milk white sides and backs, of the Holstein breed, long so famous for the quality of the cream and butter they yield in such quantities. While these animals are at pasture in the summer the stables are used, it is said, for the manufacture of those small round cheeses known all over the world as the produce of Dutch dairies, deriving their peculiar flavour, it is thought, from the atmosphere and pervading influence of the tenements in question—the troughs and manure depots, after thorough scouring and purgation, serving as reservoirs for the caseous material whilst undergoing the several changes necessary for its final evolution and maturity.

On the 15th of August I left Rotterdam, at eight in the morning, in a large and comfortable steamer, for Antwerp; reached that city at five o'clock the same afternoon, took cars immediately to Brussels, remained a day or two to enjoy, the society of my friends Suetin, Clemson, and Parkinson, then started for Paris, where I took up my abode again for several weeks, living the greater part of the time in the hospitals and in the society of the most distinguished professional men. Of these I had fondly hoped, before this, to have given a full account. But, alas! owing to constant and overwhelming engagements with lectures and professional duties, I have been unable to fulfil, entirely, the promise made to a former class. To make amends for this delinquency

I propose, *Deo volente*, to print the ensuing summer a new edition of my Rambles in Europe in 1839, and to add to it a full account of my late pilgrimage in 1847—trusting that both, thus brought forward in the shape of a volume, may not only prove instructive and agreeable to students and practitioners throughout our country, but serviceable, as a guide, to those who may be willing and able hereafter to visit the scenes from which I myself have derived so many advantages and so much satisfaction. In the mean time, “Vive valeque.”

THE END.

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