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MEETING

OF THE CULTIVATORS OF

NATURAL SCIENCE AND MEDICINE

AT HAMBURGH, IN SEPTEMBER 1830.

By JAMES F. W. JOHNSTON, M. A., &c. &c.

LERARY

(From the Edinburgh Journal of Science, N. S. Vol. iv.)

Während man in der ältern zeit die naturforschung als eine angenehme aber nutzlose Beschäftigung und als ein harmloses Spielzeug müssiger Köpfe ansah, hat man sich in der neuesten zeit immer mehr von ihrem grossen Einfluss auf den Cultur-Zustand und das Wohl der Völker überzeugt ;—und so sehen wir die Lenker der Völker bemüht grossartige Anstalten zu ihrer Beförderung und Erweiterung zu errichten.

Whereas, in former times, men regarded the inquisition of nature as a pleasant but useless employment, and as a harmless pastime for idle heads, they have, of late years, become every day more and more convinced of its influence upon the civilization and welfare of nations, and the leaders of the people are everywhere bestirring themselves for the erection of establishments to promote its advancement and extension.

Tiedeman's Address to the Meeting at Heidelberg in 1829.

Many illustrations of the fact stated in this sentence of Tiedeman's oration are to be found in our own country, in which the change of public opinion in regard to scientific pursuits has been nearly as great as in any other; but no single illustration of it to be met with in any country is more strikingly instructive, than what is contained in the history of the Society of German Scientific Men. Commencing at its outset with the trifling concourse of some twenty lovers of natural science, it has every year augmented and grown,—despite of the openly

avowed hostility of some governments, and the secret espionage of others,—till, in the short space of nine years, it has attained to the character of a great national congregation, of which the most distinguished naturalists of the age are proud to be members, and which kings vie with each other in honouring. At first a few cities only were open to them, and the dread of political associations shut many gates against them; -now their task is to choose among many rival claimants, each of which would gladly entertain them. They are borne along now by the tide of public opinion, directing at once and directed by it; and the honour formerly bestowed willingly on individuals, from a knowledge and appreciation, in some degree, of their labours, is now bestowed with equal cheerfulness, and with great increase, on the whole body of indefatigable men, of which

individual philosophers are but members.

The Society of German Naturalists owes its origin to Professor Oken of Munich. This indefatigable and free-minded man was formerly Professor of Natural History in the University of Jena in Weimar, to which chair he was appointed in 1807. He was already favourably known for five or six volumes in natural science, especially zoology; and, amidst his professional labours, he found leisure for adding every year one or two to their number. Among these was A System of Natural Science, A Treatise on Light and Heat, and A System of Natural History. In 1817 he commenced at Jena a monthly journal of Literature and Science in a quarto form, of which he still continues to be the editor. But the times were critical, or men in power, at least, thought them so. The principles of the Holy Alliance demanded a strict surveillance of the periodical literature; and it was dangerous for small states to give countenance to liberal men, or to permit political treatises to be published in their dominions. Oken cared little for men in power. He acted independently, and admitted into his Journal some articles of a political nature, which gave high offence. The consequence was the intimation, "either you must discontinue the Isis, or give up your chair."-" I told them," said Oken, "I cared nothing for their chair, and I would go on with the Isis in spite of them." Of course, he lost his chair; and, though he was allowed to remain, the Isis was forbidden . to be published in Weimar. The publication therefore was transferred to Leipzig, while Oken continued to reside at Jena. In 1827 he obtained a chair from the King of Bavaria in the university of Munich, where he is now professor of physiology.

Oken is a little man, probably near fifty years of age, of dark, yet sanguine complexion, and features whose habitual, if not natural, expression, is severity and determination. His dark eye and compressed lips have a forbidding and distance-keeping expression, for one can read upon them our own national motto, "Nemo me impune lacessit." I do not know how far his power of saying severe things corresponds with his apparent inclination; but, if the one equal in amount only half of the other, I should be very sorry indeed to come under his lash.

In conversation Oken is nevertheless pleasant and communicative; and I shall not soon forget the buzz and general sensation,—the turning of eyes, and moving of feet, in the rooms of the Apollo Saal, on the occasion of our first public soirée, when the words, "Oken is come!" were passed along the assembly. His friends crowded first to greet him, after which foreigners and other strangers were severally introduced; and one could easily forgive the slight air of patronage with which he, though the last comer, welcomed them to the meeting, when we considered how goodly an assemblage his efforts had brought together.

It was in the *Isis*, and while still at Jena, that Oken proposed the plan of a great yearly meeting of the cultivators of natural science and medicine, from all parts of the German Fatherland. It was a noble idea, and nobly has it at length been brought about. But in 1821 Oken was still a tainted man,—the remembrance of his political sins was still fresh,—and his proceedings were consequently regarded with suspicion. Societies of all sorts were dreaded by the German governments, and they feared some hidden and dangerous design under the guise of a concourse of philosophers. But open influence could not be exerted against that which as yet had no being; and, in 1822, the first meeting took place at Leipzig, Dr Schwägrichen, Professor of Botany, in the chair. But what a contrast did this first meeting present to those of the last three

or four years. At Leipzig there were about twenty came together from the city, and these were joined by about a dozen strangers. It was, however, a beginning. In 1823 they met in Halle in greater force, the celebrated botanist Sprengel being president, and Schweigger, well known for his Journal, which he has edited so indefatigably for twenty years, being secretary. Wurtzburg, famed as a medical school, was the seat of the third assemblage, D'Outrepont and Schönlein, of the medical faculty of that University, holding office. They now began to muster strong, both in numbers and in talent; and here the meeting first obtained a consistency and fixed establishment. Frankfort received them hospitably in 1825; and the scientific men, and the authorities of the city, united in showing attention to the strangers. This place had the honour of first adding public respect to the private entertainments got up by the inhabitants to gratify their visitors; and, among these private entertainments, that of Banker Bathman deserves especial commemoration. If not the first, it was the greatest yet paid to the entire body since their assembling commenced. Thus Frankfort, though the seat of no university, has a claim to much merit as a patron of scientific men. At Dresden, in the following year, preparations were also made for their reception; and the learned men connected with that seat of the fine arts, exerted themselves to make their visit a pleasant one. Seiler, the Director of the Surgical Academy, was president, and Carus the Anatomist was secretary. The sixth meeting in 1827 was held at Munich, the seat of a flourishing University, opened only the preceding year under the favouring auspices of Louis Maximilian of Bavaria. This city also deserves well of the Society, and the attentions of the King were such as it had not hitherto experienced. Besides general attention to the comfort and accommodation of the whole body, particular attentions were paid to the individual members; and each person, during the period of his stay, had an invitation to dine at least once in the palace. They began now to reckon their number by hundreds; and the amount and variety of subjects brought forward at their public meetings having increased beyond expectation, it was found necessary to break themselves up into sections, of which the botanists, an amiable and enthusiastic race of men, first set the example. Thus time was gained; men of like tastes and pursuits brought more frequently and more closely together; and every one spared the infliction of dissertations and discussions upon the thousand and one subjects in which he felt no earthly interest; for, though all cultivators of natural science rejoice in the advancement, and admire those who successfully cultivate any one department, yet each one has his own favourite branch or branches, beyond which he has little anxiety to roam, and unconnected with which discussions, however learned, are often only tiresome. It was a judicious plan, then, to make the separation into sections, and thus to permit the shell and fly men to discuss the mysteries of their several ologies, without scandalizing the more grave and weighty pursuits of medicine and oryctognosy. This practice, begun at Munich, assumed a more extended and definite form at Berlin, and was finally arranged and consolidated at Heidelberg.

Berlin gave a powerful impulse to the rising distinction of the Deutscher Naturforscher Versammlung. Every thing was done by the Prussian government, and under the immediate superintendence of the distinguished president, Baron Humboldt, for the convenience and accommodation of the strangers; and arrangements were there first entered into by which the comfort of those from a distance was materially increased. Purses, even, as well as persons were attended to; and as living in hotels was considered too expensive for many, who, nevertheless, in a strange place, would be unable to provide themselves with private lodgings, several hundreds of the latter were secured, chiefly in situations which gave convenient access to the places of meeting; and thus, the most complete strangers found themselves at once economically and conveniently situated. Fetes and excursions also were got up, and concerts given, which the royal family, and even the king himself, graced with his presence; while poetry and music lent their aid to welcome and eulogize the votaries of science. The celebrated Humboldt presided, and Lichtenstein, the well known zoologist and South African traveller, held the office of secretary. The number of strangers who came from various parts of Germany and the northern countries, was 269 and

the total amount of members enrolled was 464. In this numerous assemblage of learned men, England had but one representative. Yet one man may be worth a host, and the science of England suffered no derogation in the person of "Charles Babbage, London." This meeting at Berlin was by far the most splendid that has yet taken place, not from the number of strangers who attended it, for in that respect it was nearly equalled by the late meeting at Hamburgh, but from the circumstance of its being held in the capital of a powerful kingdom, where the government had shown a disposition to honour, and pay attention to scientific men,-in Berlin, the seat of the first university in Germany, where the professors of every science are among the most eminent men, and the collections in every department of natural history of the most splendid description to be found in the whole empire. It remains to see what Vienna can do, in the ensuing September, to rival the more northern metropolis.

The beautiful and romantic city of Heidelberg was the seat of the following anniversary: Tiedeman and Gmelin, whose names have so long illustrated the university of Heidelberg, and whose labours have so much increased and diffused the knowledge of the anatomical and chemical sciences, held on this occasion the two official situations. At this meeting the number of strangers amounted only to 193, and the total amount of members to 273, but it proved, nevertheless, a very interesting and satisfactory assemblage. Besides the zeal for science, there are always many circumstances which will influence the resort of naturalists to any one place of meeting. The most important of these are the distance and the facility of access. To obviate the former in some measure, and to bring the meeting occasionally, at least, near the homes of all, it has become the custom to select in alternate years a city in the north and south of Germany, as the place where the assembly shall be held. But while this regulation secures the attendance of the men of the south, for example, it excludes almost, ab ipsa re, all those of the north from any participation in the proceedings. There are few who have leisure for extended journies of this kind every year, and still fewer whom circumstances will permit to undertake them. It does not follow, therefore,

from a diminution of numbers at any one anniversary, that any diminution in the zeal of philosophic men, or of their estimation of the benefits to be derived from frequent general intercourse, has taken place, but simply that the facilities of attaining these benefits has been less. All circumstances considered, therefore, the meeting at Heidelberg, though less numerous, by far, than that of the Prussian capital, was at once creditable to Germany,—creditable to the men of science in which it abounds,—and highly creditable to the city in which it was held.

Among the autographs appended to the account of this meeting, drawn up by Tiedeman and Gmelin, I find "Robert Brown, botanist, London,"—a man of whom Agardh said to me, "I believe him to be the greatest botanist of this or any other country;" and "Andrew Duncan, Materia Medica, Edinburgh," for whom many earnest and kind inquiries were made of me at the subsequent meeting in Hamburgh.

It has become now a matter of debate among the cities of Germany, which shall have the honour of receiving the society at their anniversary. To have the smallest chance, the city desirous of the honour, must either be represented by a deputation of members attending the meeting, or must otherwise express to the society through its president,-its desires, its claims, and the efforts it will make for general accommodation. An application of this kind from Prof. Oersted in Copenhagen, gave rise to a discussion of considerable importance. The society is entitled a German society, and by the spirit of the statutes, its meetings can be held only in the cities of Germany. It was, therefore, proposed by Dobereiner, of Jena, and Muncke, of Heidelberg, that the terms of the statutes should be altered, leaving to all future meetings the power of nominating cities beyond the boundaries of Germany, as places of assembly. This motion was opposed by Lichtenstein, who argued very judiciously that it would be time enough to make such an alteration in the statutes when the greater part of the German cities had been visited, and they found themselves at a loss where to go. The laws, therefore, were allowed to remain unaltered, and after some rivalship between Hamburgh and Gotha, the former was fixed upon as the seat of the ninth an-

niversary. It seems indeed an unreasonable demand on the part of the Copenhagen men of science, and one which would greatly enhance the evils arising from distance, and want of access above alluded to, to ask a transfer of the place of meeting from Germany to the Danish islands. It is the king of Denmark who is anxious for a visit of so many learned men, in the hope that it may give an impulse to the science and education of his own dominions, which he is sincerely desirous to foster and encourage by every means in his power. But could the Danes and Swedes forget their mutual hostility,and what have science and scientific men to do with national animosity,-it were better to institute a " Scandinavian Society," in imitation of the German, and such as we hope to see before long in the British islands. This society would embrace Sweden, Norway, Finland, Denmark proper, -and the Duchies might also be included; and in this wide field, which has produced so many of the greatest men in science, there are ample materials for the formation of a scientific anniversary of the most splendid description. Were Berzelius, Oersted, and Pfaff to unite their efforts, the matter would be accomplished at once. There are in each country able and promising men to second them, and the governments of Denmark and Sweden would not be slow in rendering them every necessary assistance. The meetings would not be so numerous as those in Germany now prove to be, but from that very circumstance they would derive an additional interest, and be doubly beneficial. I consider it one of the greatest objections to the German meetings, that they have now become so numerous as to defeat the great object for which they were instituted,-to enable men of science to cultivate an acquaintance with one another. It was only necessary, for example, to attend the late assembly at Hamburgh, to see how impossible it was for such acquaintances to be formed to any extent. The pleasantest days I spent there were at the commencement, when I had leisure to learn to know well a few men. When the crowd came, every body accosted every body, and no particular person could be met with at any one time or place. You saw faces, and were introduced to people for whom you cared nothing, and when you had at last laid your hands upon a man whose conversation you could enjoy, straightway another person insinuated himself between you, or sat down beside you, or came up with some foreign subject in his mouth, -and so farewell to your quiet instructive tête-à-tête. It is all very well for a day or two, to run from flower to flower in this way,-dropping here a little word, and there a little word, but it is extremely unsatisfactory in the end; and so one finds it when he sits down at night, or after the lapse of a week so spent, to sum up what he has learned,-wherein he has been improved, or with what he has been enlightened,-he discovers that he has only been amusing himself,-and that he would have shown equal wisdom had he saved himself the toil and trouble of his long journey, and spent his evenings instead, in the theatre or the ball-room. A great deal might be done by maintaining better order, and by more judicious arrangements than were put in force at Hamburgh, but more or less of the evil I have adverted to will always attend meetings equally numerous.

The reports of these meetings hitherto published by the official directors, by Humboldt and Lichtenstein of the meeting at Berlin, and by Tiedeman and Gmelin of that at Heidelberg, are only meagre outlines of the proceedings. They give the president's opening speech in full, or mention that such and such things were done on certain days, and record only the titles of the papers read on the different branches of science. They are nothing but mere formularies—useful indeed in showing how and in what order the affair was conducted, but almost entirely uninteresting in a scientific point of view. The best accounts published, have been those of Oken in the Isis. These contain not only the order of the proceedings, but all the important papers read, -an outline of the subjects discussed, at least in some of the sections, -notices by the editor of the persons or things most worthy of remark in the place where the assembly had met; and critical remarks upon things said or done, or suggestions for saying or doing them better on future occasions. One objection, however, lies against all these reports and statements; they are excessively slow in making their appearance; so that, even in Germany, many months elapse before any thing better than flying or ephemeral reports of the proceedings reach those whom circumstances had

prevented from assisting at them. It is not my intention to follow the example of Oken, unless it be in occasional strictures upon the proceedings. Few individuals can obtain materials for a complete report; but I shall group together such a number of desultory remarks regarding the proceedings, the persons assembled, and the places they represented, as will, I hope, amuse and interest my readers, while they at the same time give a general idea of the way in which these meetings go off among our German neighbours.

By the regulations of the Society, the first public meeting takes place on the 18th of September. Members generally arrive before that time, however, and private meetings, both individually and in parties, take place several days earlier. One person drops in after another so slowly and gradually, that if you are on the spot when they begin to assemble, you have the opportunity of renewing old or of making several new and interesting acquaintances. The points of a man's character which are to attach him to us are not always discernible at a glance, and it requires time and opportunity for other men also in whose memory we should like to hold a place, to become sufficiently acquainted with us, and with our claims upon their regard. I do not consider it enough to have seen and conversed with a great man; I wish, if possible, also that he should remember to have seen and spoken with me. The latter wish implies a little more vanity perhaps than the former, but both spring, I conceive, from principles equally virtuous and equally laudable. The one implies an admiration of that virtue of whatever kind which has raised another to eminence, the other, the desire of displaying like virtue ourselves. These two desires do not co-exist, or do not co-exist with equal ardour in the breasts of all men; and, therefore, all will not feel with equal force the objection I have stated above, as occurring to me when wandering among four or five hundred individuals, from whom it was required to make a judicious selection, and to become acquainted with those you had selected, all in the space of six days. I reached Hamburgh, fortunately, in sufficient time to enable me to see many on their arrival, and to me those days were by far the pleasantest which I was enabled to spend with a few whose time was still at their own disposal.

Among this few was the amiable Agardh, with whom an acquaintance begun in Lund, was here strengthened and improved.

In Hamburg, a city of merchants, among whom a rise or fall in the funds of which it is the mart, is of absorbing interest; a luxurious people, of whom it may truly be said that "their God is their belly,"-it was difficult-it was impossible to find a man who, on account of mere scientific distinction, deserved to occupy the chair of president at the meeting of the Naturforscher. But in the head burgomaster, Dr Bartels, they found a man who, having formerly written a book of travels, might with propriety be chosen,-who, from his knowledge, was capable of appreciating the objects and value of these scientific meetings; -from his forensic talents was capable of conducting the proceedings with ease and dignity,and who, from his influence as chief magistrate of the city, was most able to provide for their accommodation, and to secure them that attention from official men to which they were entitled, and to which they had been accustomed. The president, therefore, was well and prudently chosen, and it is an act of justice to a very worthy, kind, and talented old man to say, that his general conduct in the chair, his attention to individuals, and the judicious arrangements made under his superintendence for the comfort and enjoyment of all, were such as to give general satisfaction. Where any thing was found fault with, or there appeared any thing deserving of criticism, the universal feeling was, that he at least was not to blame.

But in the choice of a secretary they were not so happy; they made indeed a very unfortunate, and, as it proved, a very unsatisfactory choice. It is not my intention to say any thing harsh of Dr Fricke, but certainly his temper, his manner towards the strangers, and his general conduct in the discharge of his office, showed him to be entirely unfitted for so distinguished and peculiar a charge. Fricke stands high in Hamburgh as a surgeon, and is esteemed a successful operator; but his fame chiefly rests on his practice in curing syphilis without the aid of mercury. This practice was the subject of considerable discussion in the medical section during some of their visits to the Krankenhaus, (Hospital) of which Fricke is surgeon.

Its route in the north, for it has been a travelling practice, was from England to Copenhagen, some twenty years ago, thence to Stockholm, and after being rejected in both places, it has taken refuge in Hamburg with Dr Fricke. That he has employed it successfully there is no doubt, and so, in certain circumstances, may any practitioner; and the precautions taken in regard to this disease by the authorities, and the consequent general mildness of the cases, sufficiently account for the success with which it has been attended in this city.

Of the professional men in Hamburg, Dr Lehmann of the Botanic Garden was the person best fitted, as well by his scientific reputation as by his amiable and gentlemanly manners, for the office of secretary. But there are always minor and unavowed reasons for such appointments, even among men of science; and Dr Fricke having the honour of bearing to the meeting at Heidelberg the invitation of the Hamburg burgomasters, was almost as a matter of course appointed secretary to the ensuing meeting. To assist the secretary, a committee of directors was also appointed, chiefly medical men residing in Hamburg, that the arrangements for the reception of so many strangers might be more easily and more fully completed.

On reaching Hamburg, the first duty of the stranger was to repair to the *Stadthaus*, the seat of the police and other minor courts, where, after elbowing his way through a tribe of ragamuffin-looking officers and still more wretched culprits, he found his way to the main staircase; and, on announcing himself as a *naturforscher*, he was shown up one or two flights of steps, and ushered into the grand room of state, where the banners of the Hamburgers wave from the walls, and a series of portraits commemorate at once the illustrious friends of the Hanse towns, and testify at the same time the gratitude of the sovereign senate of the Merchant Queen of Germany.

It depended entirely upon the day of the month whether the scene which presented itself on entering this room were worthy of especial notice or the contrary. If it were still only the 13th or 14th of the month, he would see perhaps a dozen or twenty people standing in groups of three or four in different parts of the room, and an occasional rare ejaculation would reach him as some communication of interest was made,—probably re-

garding what persons were on their way to the meeting. Such was the case when Agardh and I on the 12th entered the room. To all we were immediately introduced by the directors—each found some pleasant person or persons to converse with; and in cultivating personal acquaintance with men whose names you had probably often heard of, an hour passed quickly away. There were as yet no other public meetings than these two morning hours from nine to eleven, and they were chiefly for the purposes of enrolment, and the delivery of their tickets of admission to the strangers as they arrived.

But every succeeding day the interest of these mornings increased exceedingly, and I consider it a strong inducement to be early in repairing to the place of meeting, that the scenes which ensue on every fresh arrival may be seen and enjoyed. A man in his travelling-dress walks into the room, and goes straight up to a group on his left, where he recognizes a well known face. A scream of joyful recognition, and a host of loud exclamations, and a mutual behugging and beslobbering with salutations, first on the one side of the face and then on the other, with various shaking of hands and other such gestures attract the general attention; and "who is that? - who is that?" goes from one to another; and then there is a move of the men who know him, or who have heard of and wish to know him, and the rest are beginning to resume their conversation, when a second interruption arises from the entrance of a great man in another science, and another set of men is set on the qui vive, and thus perhaps an entire hour may be most delightfully spent in merely looking on, in studying the physiognomy, and in watching the phases of expression and deep interest that pass over the countenances of different individuals by the mere presence and contact of others, votaries of the same branch of study, whom they have hitherto known only by their labours, but whom, though unseen, they have deeply venerated.

The varied forms of salutation too are an interesting feature of such an assemblage, at least to us islanders. Saluting among the men is no where uncommon, I believe, from Torneo to the Straits of Gibraltar, but in some places it is more general than in others; and among some of the northern, the

Scandinavian people especially, it is ridiculously frequent. Were it not that these people smoke perpetually, and therefore disregard the trifling affair of breath, I should think it must in many cases prove a very disgusting custom, at least I who am no smoker have found it so. One little Polish professor from Warsaw, with whom I got very intimate at Hamburgh, used to inflict upon me a regular salute on both sides at every meeting and parting, and on bidding him farewell, and obtaining his blessing, I received a triple portion twice told from the worthy kind-hearted man. Fortunately for me his breathings were of the less tainted character.

Then, on presentation to a stranger, there is the bowing, and the bowing, and the bowing-interminable. First make your bow in front, then take a step to the left and make another, then two steps to the right and make a third, then one step to the left and make another bow in front. This is Scandinavian, and is the least you can do to a gentleman; where ladies are concerned, a Swede begins at the one end of a long room, and bows slowly all the way till he comes in front of the ladies seated at the other. Or in Germany, you see two real bowing men come close up in front of one another till their heads almost touch as they begin to bob, and bob, and bob again like so many Chinese Mandarines. An old man with a powdered head and only a few long teeth in front,-a little man with an interminable smile upon his phiz,-an apothecary from Brunswick-might set up, I think, as a model of this kind of bobbing, for he finished it off in the most characteristic style of any man I saw at the meeting. He is, however, a very worthy and kind-hearted man; and should any of my readers ever find themselves in the city of Brunswick, an hour devoted to visiting him they will not think ill spent.

And of verbal salutations, it is curious to hear so many different in the same apartment. "Mycka Tjenare" says the Swede,—"Hvorledes befinner de Dem" adds the Dane,—"Gut Tag, Gut Tag, wie gehts, lieber," says the German,—while the French "Comment vous portez-vous," serves as a general form of address among those who do not understand each others tongue. Then there is the mixing up and compounding of languages where so many are spoken, and so few can

speak them all. In walking about in the large saloon where several hundreds are met together, you meet first a Swede, perhaps, and as he prefers his own tongue where he has an opportunity of using it, you do your best at a few sentences, making good use of the words you have still retained rusting upon your memory since you left the western shores of the Baltic. Then you encounter a German, and in two minutes you set him a laughing, and in two seconds more you join him yourself, when he tells you of a couple of Swedish and one Danish word you have popped into the sentence. You commence again with a third tongue only to make similar blunders, of which you never steer entirely clear, until you meet some one who can understand your native language. Such blunders in such a place, are unavoidable, and you hear them made so often that they cease to afford the amusement at first derived from them.

The arrivals were occasionally by single individuals from the smaller cities, sometimes by pairs; more generally a band of men from one university came together, headed by an acknowledged leader. In all cases, the great men formed the centres of little systems of other men, well content to play the second fiddle for the honour of going along with him. In other words, they came like little chieftains attended by their tails. Thus Agardh had his little tail of two men, as many as the university of Lund could afford. Berzelius could muster but one recruit at Stockholm, for the journey was expensive; but at Berlin his body guard was increased to three, while Pfaff and Wiedeman brought with them almost all the scientific men in their university.

Pfaff and Wiedeman are the ornament and pride of the University of Kiel. Pfaff is known for the depth and extent of his knowledge in natural science, and for his works on physiology, pharmacy, and chemistry. He is an extremely lively and pleasant person, and has sometimes, it is said, expressed his opinions of things more openly than was agreeable to certain governments, by which his character was neither so well known, nor his worth so well appreciated, as by his own paternal monarch. Travelling in Prussia some few years ago, when se-

cret societies were all the order of the day, and the German governments in great alarm, he talked as usual, -more freely and boldly than was encouraged in that country. The Prussian government was offended, and Pfaff having got safe home, the ambassador at Copenhagen was charged to make a remonstrance on the subject; but the King paid no attention, and his ministers, therefore, could give the ambassador no satisfaction. Determined on pushing the affair, the ambassador had an audience of the King, and signified that the Prussian government expected Pfaff should be punished. "Oh," said the King, " Pfaff is my very good friend, he has only been a little distrait; he has fancied he was in his own country, where he might say anything:" a terrible satire, coming as it did from the most absolute monarch in Europe. Pfaff paid a visit to London in the summer of 1829, and on his way home again, Dr Bowring boasts of the honour of saving from a watery grave, one of the lights of Kiel and of the first men of his country.

Wiedeman, by some called the Astley Cooper of Germany, is the most celebrated accoucheur in Germany, and the only surgeon who has performed the Cæsarean operation twice with success, upon the same individual.* He was formerly attached to the medical school of Brunswick, and being employed professionally by the late ducal family, had the honour of bringing into the world the now expelled Duke Charles. Unfortunately he has been long afflicted with bad health, which has impaired his activity and usefulness; still his devotion to science remains, and his enthusiasm as ardent as upwards of threescore winters will permit. It was an effort which brought him to the meeting, for he had been complaining much. "I am in bad health," he wrote to a friend in Hamburgh, "but I will come to the meeting, if it should be on men's shoulders." Besides his medical pursuits, Wiedeman is also a zealous and learned entomologist, and my judicious friend Dr Traill of Liverpool, has remarked to me, as illustrating one of the grand points of distinction between medical men in this country and their brethren on the continent, that Professor Wiedeman, at the late meeting in

^{*} The patient, I believe, was a little deformed ricketty woman, well known in Hamburgh.

Hamburgh, besides exhibiting drawings of the species of the genus Mydas, distributed also copies of a memoir in which he describes several new species of insects, confirming the propriety of the genius Achias of Lamarck, which has hitherto rested on a single specimen, and that one imperfect.* There is scarcely an eminent medical man in Germany, who is not also distinguished for his researches in some branch of natural history, and "what a contrast is this," he adds, "to our profession at home."

Berlin sent about twenty members, among whom, however, were but few of her eminent men. In the list are the names of Lichtenstein, Encke, Chamisso, and Otto, of the Botanic Garden. From Copenhagen came Professors Oersted of physics, Zeise and Forchhammer, of chemistry, Horneman of botany, Rheinhardt of zoology, and Jacobsen of physiology and anatomy. Christiania was unrepresented, as was also Upsala-the ancient seat of natural science, possessing now but the shadow of its former fame. Stockholm, besides its Berzelius, sent Professor Eckström the head of the surgical school, and Wickström, the botanist; Helsingfors in Finland, to which city the university has been removed since the fatal fire at Abo in 1827, sent Bonsdorf its professor of chemistry; Petersburg sent Fischer of the Botanic Garden; Moscow, Fischer the zoologist and President of the Academy of Sciences; not the vegetable but the animal Fischer, as he wittily observed to me when presented to him; while Warsaw sent its Jarocki, Mill, and Schubert, professors of zoology, physiology, and botany. Even Cracow sent Estreicher, its professor of botany, and Dorpat its Struve, well known to astronomers. Breslaw, so distinguished of late years among German universities for its eminence in natural science, sent not many men; but Otto the celebrated anatomist was of the number, and few places therefore were more worthily represented. The little university of Rostock, sent two of its professors, Dr Vogel of general medicine, a name honourable among German physicians, and Professor Siemsen of mineralogy. Griefswald sent one only of its thirty teachers, Hornschuch, professor of zoology.

^{*} Wiedeman is also the author of an excellent work on non-European insects.

From Giessen came Wilbrand, professor of botany and zoology, the propounder of a new theory of the tides, and Professor Liebeg, of chemistry, a young man whose name is already familiar to chemists for several important researches and discoveries, of great devotion to his science, of great labour, and of greater promise. The university of Königsberg, the farthest north of the German seats of learning, but once raised to such eminence by the prelections of Emanuel Kant, kept entirely aloof from the Naturforscher, and the city itself was represented by a single medical man. Saxony was in a state of confusion, revolution was at work in Dresden and Leipzig, and there came few from the universities to the meeting at Hamburg. Jena sent but two members of its professional body; Leipzig, the same number with a few physicians; Freyburg and Marburg sent each one professor; and from the great university of Göttingen, (die perle deutschen hochschulen,) so near the place of meeting, and so famed for science, came also but one-Professor Osiander! Munich likewise sent only one, but he was the father of the assembly -Oken. Halle, celebrated for natural science, where Schweigger teaches chemistry-Nitzsch, zoology-Curt Sprengel and Kaulfuss, botany, -which boasts of 65 professors, and 1300 students, sent only two of its learned men to the meeting, Germar, professor of mineralogy, and the celebrated Krukenberg of clinical medicine. The city sent also my good friend Dr Meissner, editor of a pharmaceutical annual. From Vienna came one professor, Jacquin of botany and chemistry, whose father's works are known and prized by botanists, and with him young Dr Vivenot, a general favourite. Prague, the mother of the German universities, the rival towards the end of the fourteenth century of the famed schools of Bologna and Paris, and the proud nurse of 20,000 alumni-Prague now ranking in the second class of the German schools, in regard to natural science perhaps even lower, but numbering still 1500 students, and 55 public teachers,—the university of Prague sent but one man, Professor Presl, of botany and zoology. Shame on thee proud Prague, and shame on thee too haughty Göttingen, even Archangel shames you, for from the shores of the White Sea she too sent her one man; even

the city of Baltimore, beyond the far Atlantic, where the sun looks down upon a new world, the city of Baltimore shames you, for she too sent her one professor! The city of Prague was more worthily represented in Batka, its talented and well known pharmacologist, from whom chemists have till lately been accustomed to receive their supplies of Selenium in the form of small medallions of Berzelius, its discoverer.

From Heidelberg came the celebrated Tiedeman, with Professors Muncke, of physics; Leuckart, of zoology; and Geiger, of pharmacy and pharmaceutical chemistry,-a man in high and deserved repute among his countrymen. Bonn sent three members of its professional body, among whom was Harless, known for his many works on practical medicine. The universities of Tubingen, Wurtzburg, Erlangen, and Basel, were wholly unrepresented, while Erfurt, which preserves still a trace of the university it once boasted, sent forth the venerable Trommsdorf to preside over the section of pharmacy; and the commercial town of Bremen its Müller, professor of physics, and its distinguished botanist, Mertens, who was called to the chair of the botanical section. The academy of Soroe in Zealand, deputed its professor of zoology, Hauch; while the school of medicine in Brunswick sent Sillem, its professor of mineralogy, and Marx, of chemistry and physics. Marx is zealously devoted to optics, and to the examination of the optical characters of minerals. "You know Dr Brewster," he said to me; " I esteem him more than all other scientific men. Does he come here?-I should like much to see him.-Is he professor in Edinburgh?"-" No, he has no public function." "But he will teach people when they come to him."-" Oh, but he lives in the country, far out of the way, many miles from Edinburgh."-" Then he gives no lessons, but he should give lessons to spread the knowledge which nobody else can give. There is only Herschel and he in your country who have occupied themselves with these subjects."--" But suppose he were in Edinburgh, and were to announce lectures, he would not obtain perhaps above two or three pupils on subjects generally supposed so abtruse."-" Ah, is it so; still he should try to spread his knowledge."

What Marx says is indeed true: as things now stand much

valuable knowledge must die with Dr Brewster. There are many things in practical science which books can never make known at all, and still more which they can neither make known so soon nor so well as a few short living sentences with references to instruments and experimental illustration. It were a desirable thing, therefore, if, in connection with our seats of learning, there existed certain overlying and available funds by which the services of eminent men might be occasionally secured, even in departments the most recondite and abstruse, so that they might have an inducement to dedicate a portion of their time to the instruction even of a very few. On the continent this is easily effected. It is represented to the government, the King perhaps, that such a person is eminent in science, and he is without hesitation honoured with the title of Professor, and a certain salary, with power to lecture in a particular faculty, that of philosophy for instance, which includes all natural science, except the strictly medical departments. If his manner or his subject be unpopular, or if from any other cause none take his tickets, he is at liberty to pursue undisturbed his own investigations, while the title conferred on him is a just tribute of respect to his scientific reputation. In either case the state suffers little-his salary dies with him-science is advanced and benefited—the country is honoured as the means of that advancement-while it is provided also with a talented teacher, likely to keep the true scientific spirit alive in the land-and bound to instruct in the mysteries of his peculiar department any one who may feel himself drawn by congeniality of disposition to similarity of pursuit.

The worthy community of Hamburgh could not well understand the meaning of all this gathering together from the four corners of the land; from either shore of the Baltic, and from where, with its broad belts, it girds and embraces the isles of Denmark. The notes of preparation had been sounded for months before, and occasional notices in the Journals of the day, when business gave them leisure to catch a glance at them, told of a coming of medical men and Naturforscher, but, as it did not relate to corn, sugar, or currency, they turned to something else and thought no more about it. But when the

time arrived, and there was a talk of public attention to be paid to these strangers; of the Stadthaus, being set apart for the place of enrolment and rencontré; of the Boursen Halle, for the great mid-day assemblies; of the Apollo Saal, for the mittags essen and the Soirées, and various other apartments, public and private, for certain minor sectional meetings as they were called; above all, when it was whispered abroad that there was likely to be some good eating and drinking, some dancing too and music, and a chance that the citizens of Hamburgh might be called upon to pay for all this,—then—then to be sure, it became a matter of every day business with them, the stomach and the purse were equally concerned, and inquiries were neither few nor far between about the objects and intentions of all these strangers, and the probable expence they might cost them. You might hear the matter discussed over a shipping-list, or a newspaper, in the Boursen Halle; over a sample of coffee, probably on the Exchange, or a beef steak in a restauration. "So many men come together to see one another, come so far merely to look at one anothernonsense!" And then said another, as he took up the thread of the affair, "They say we are to feed them, but if the senate spend our money in that way, the town will be about their ears; the people will not stand it in these revolutionary times. When you or I go a travelling on our affairs to a strange place, nobody will think of treating us, and why should we treat these Naturforscher as they call themselves." " And I see," said a third, " why they elected old Bartels to be their president; they thought he could manage best to squeeze a lot of good dinners out of us." Thus the wise ones talked, pushing their hands into their pockets every now and then to see if their purses were safe. But the judicious and thinking men, though they did not pretend to understand all the objects of the meeting; though many of them were not qualified to appreciate them; and though many could not regard with an auspicious eye this taking by storm as it were, and forcing light, and learning, and liberality, into the very sanctuary of Momus; yet they thought, generally, that these strangers, being once within the walls, it would be for their own credit to use them well for a few days, when they would soon be off again.

The young men at the desk and the counter, as little instructed at least as their masters, caught another species of infection, and "what is a Naturforscher?" became the common question among them. And when, in the mornings, they repaired to the pavilions on the Alster, for their matitudinal cup of coffee, or in the evenings, when the letters were written, to sip their vespertinal glass of punch or sugar water, still the question was, " have you heard any thing about these Naturforscher, or what kind of fellows they are?" and then at the cry "da geht ein Naturforscher-there goes a Naturforscher," there was a hustling and a justling, a knocking over of chairs and tables, and a scrambling for hats, as every one hurried to the door to see what the animal was like, and if it walked on two legs or four on its way up the Jungfernstieg. These, and similar traits of naiveté, as they occasionally reached our ears, were a source of infinite amusement.

As it was impossible for one individual to attend more than two or three sectional departments, so it is impossible for one person, who has not more ample means of information than a stranger can be supposed to possess, to give an account of much more than what passed under his own immediate observation. In continuing my remarks, therefore, I shall throw what I have to offer in regard to the proceedings of the assembly into the form of a journal, which will enable me to give more easily, and with more appearance of method, several little notices which could not without confusion be introduced in any other way.

Every thing worth seeing in Hamburgh is thrown open to the Naturforscher during the ensuing ten days, and the strangers, formed into little parties, spend their time in visiting such collections and sights as best suit their dispositions and pursuits. In Hamburgh these collections, of a public kind at least, are neither numerous nor remarkable. That such should be the case was to be expected in a city wholly swallowed up in the pursuit of gain. And yet there are some private collections which would do honour to any town, and which do double

honour to the individuals who have formed them. Of this kind is the well known and splendid mineral collection of Von Struve, the Russian minister, a collection which is now understood to be sold to the Russian government. This cabinet has cost Von Struve twenty-five years diligent collection, is especially rich in Norwegian and Siberian minerals, and contains 7000 or 8000 specimens, many of them finely crystallized, of great value and beauty. The pleasure I had derived from examining this collection during a former visit to Hamburgh was shared on my second visit in common with all the strangers who felt an interest in mineralogical science—the minister having kindly consented that the section of mineralogy should meet in his house. Inferior to that of Struve, yet deserving of mention as collected with zeal and in less favourable circumstances, is that of Pastor Muller, containing 2500 specimens. This collection I had not the pleasure of seeing.

Among eminent collections also must be particularly noticed the rich and extensive entomological cabinet of Mr Wilhelm von Wintem. This collection embraces the entire range of entomology, and possesses a degree of completeness in all its branches which is rarely to be met with. "Von Wintem is an exceedingly young man, and a merchant," said a young Swede to me, a zealous entomologist, " I cannot understand how he has been able to amass so splendid a collection." It would be the work of a lifetime at least in most countries and to most persons, but Hamburgh has communication with all the world, and the zeal of Von Wintem has known how to improve the advantages of his situation. No entomologist will visit Hamburgh without thinking of Von Wintem's collection, and they will find its possessor equally courteous in his attention and willing to contribute to their gratification. Professor Lehmann has also a general collection of insects, but it is less worthy of mention than the rich private collection of the Messrs Sommer in Altona, which, being almost within gun-shot, may be spoken of in the same paragraph with the collections in Hamburgh. This collection comprises only the Lepidoptera and the Coleoptera, but it is nevertheless reckoned one of the richest private collections in Germany. The best collection of birds is that of Mr Amsink,

which is certainly splendid for a private gentleman and a merchant. It contains many fine birds in fine order, but its riches consist chiefly of European species.

The only other collection worthy of particular notice is the museum of Mr Röding. This museum consists of two subdivisions, containing natural productions and works of art, and is certainly a wonderful result of the patient and persevering industry of one private man, and he by no means rich. Röding, however, is rather a collector of curiosities than a scientific naturalist. There are indeed many birds-many fishes—still more shells—some quadrupeds—a few minerals with anatomical preparations and various other things crowded in the natural history apartment, and all these are named and classified after some author, but no one department approaches completion. None of the different collections, except perhaps the shells, can even set up a claim to represent a department. Most of the specimens susceptible of the attacks of age, are also showing symptoms of decay, for while Röding has been advancing in years, his favourite collections have been growing old also, and unless some helping hand step in to his aid, the work of his whole life will not long survive himself. It would take a large sum to keep even this collection in good condition, and it would only show a proper and becoming liberality in the city of Hamburgh to purchase it from its highly meritorious and industrious collector, and by spending a little money in repairing, save from destruction so interesting a memorial of one of its worthiest citizens. Röding's desire for rarities is still unsatisfied, and the money he has to spare he expends rather in the purchase of new curiosities than in the reparation of the many he already possesses. The part which composes the works of art is more perfect, because less susceptible of decay, and is far more surprising as the work of a private individual than the natural history portion. His works in amber, ivory, silver, and wood, are both very rich and very worthy of being visited. The whole forms a kind of Omnigatherum, in which every one will find something to interest him, and with this view it is thrown open to the public once or twice a week at a trifling expence.

On one of these days I visited Dr Schmeisser, who gives

lectures on chemistry in Hamburgh, and in whose auditorium the chemico-physical and pharmaceutical sections held its sittings. Dr Schmeisser is an old pupil and friend of the venerated Dr Black, and has many pleasing recollections of Edinburgh. It is exceedingly interesting to hear old men talk of the chemistry of their youth, and of the wonder with which every new discovery was regarded. "Soon after the discovery of the phosphuret of lime," said Schmeisser, "I was exhibiting its decomposition by immersion in water, and the spontaneous combustion of the phosphuretted-hydrogen formed-" We must have you German fellows sent out of the country," said a witty person to me, " or you will be setting the Thames on fire." And he told, with much glee, how, when the method had become newly known, he formed a quantity of artificial spermaceti from some half-decayed muscles by means of nitric acid, and making it into candles, sent some of them to Blumenbach, with a notice that they were prepared from the legs of a man who in his life time had done no good, and how Blumenbach punningly replied to him, " Mortui lucent qui in vita obscuri fuerunt." Poor Schmeisser, he has not been too fortunate in the world, and bad health confining him to his room, prevented his taking any share in the proceedings of the Naturforscher.

On the evenings of these three days there were reunions in the Hotel de Russie, where a large room had been secured for the purpose. During this time our numbers were but few; there was more quiet conversation, therefore, and less bustle and looking about for friends than when the numbers had become much greater. The only regret was, that one did not see among those assembled the persons he most anxiously looked for;—there were many eminent men—but chemists did not desire chiefly to see eminent botanists—nor did the pure zoologist care much for the presence of the mere practical surgeon or physician.

16th.—Dr Traill of Liverpool is the only Englishman yet arrived, and great disappointment is expressed that Edinburgh has sent forth so few. Dr Duncan has evidently been expected, and many inquiries have been made concerning him. Among the surgeons, there is a considerable desire to see

some of our Edinburgh men of the knife and lancet. "Your surgeons in Edinburgh are very bold," said an eminent professor to me, the head of the Swedish school of surgery, bolder than we want here on the continent. Your Lizars cares nothing for common operations; he likes only the most hazardous. He performs an operation very daringly and very cleverly—goes home at night—writes it out for the Edinburgh Medical Journal, and all is going on very well;—but the next number comes—and the patient—is dead!"

The strangers having now collected in considerable force, arrangements had been made for commencing the public dinners on this day. The directors had superintended the preparation of the Apollo Saal, and a suite of rooms connected with it for this purpose. Dinners, wines, and refreshments for the soirées, held from this time in the same place, were provided by the landlord of the Hotel de Russie, and the treasury of Hamburgh, notwithstanding the alleged complaints of a few individuals, had come liberally forward to defray certain expences unavoidable in fitting up such a place for such an occasion. The charge for dinner was fixed at two merks, about half a crown, for each person, exclusive of wine, and it was said that, to secure good dinners, the city gave something more. Had the rate been higher, the object in view, that of bringing the strangers as much together as possible, would have been defeated, as many would have preferred dining more quietly and more comfortably at a restauration, which they could have done for a good deal less. At four o'clock, we began to take places at the different tables, of which about eighteen were ranged up the middle and along the sides of the room, but so bad was the attendance, that before every one was served with wine and could boast of a plate of soup. at least a full hour had elapsed. I expected that we would have more regularity on the ensuing days, but on each succeeding one, as the numbers augmented, the noise and confusion, the running about, and the scrambling for places, increased to such a degree, that, when 500 or 600 assembled to dinner, it became perfectly intolerable. None were admitted but those who were members, and no ladies but such as were wives or sisters of members. Burgomaster Bartels presided

at the principal table, and each of the directors had his place assigned him at one of the others. At the conclusion of dinner, it was announced by Dr Fricke, that such gentlemen as chose to spend the evening at the theatre, would receive tickets from the directors at a reduced price. Of this offer many availed themselves, the consequence of which was, that the soirée, by far the most pleasant of all our reunions, was, on this evening, unusually dull and insipid.

17th.—Among the arrivals this morning at the Stadthaus, were Berzelius, Oersted, Pfaff, Wiedeman, and many other eminent men whom all were glad to see, and old friends particularly, to meet again with kind greetings. An attempt was made during dinner to-day to drown the noise by the introduction of an excellent band of music, vocal and instrumental, which in some degree succeeded. But even this subjected us to another petty annoyance. During the interludes, parties of the performers went round the room with plates soliciting contributions, as any street-fiddler or ballad-singer might do. Such is indeed the custom in the caffés in Germany where music is found; the performers take their chance; but it ought to have been avoided on so particular and public an occasion as this; and whoever caused the music to be introduced, should also have caused it to be paid for.

The evening reunion passed off very pleasantly. There was a large assemblage—every one in a humour to please and to be pleased. A considerable sensation was created by the entrance and presentation of Oken, the founder of the society. It is very interesting to stand by and witness the various degrees of familiarity and pleasure with which, where so many meet, different persons recognize the same individual. Some at once shaking hands—others saluting—others waiting till they have made out the name of a man they have never before seen, and then bursting out into an exclamation of delight to be heard at the other end of the room.

18th.—This morning's was the last of our meetings at the Stadthaus, the regular session of the assembly commencing on the 18th, and the entire mornings during the session of eight days being taken up with the business of the various sections. In the morning, Dr Traill and I, with our countryman, Mr

Palk, drove out to the suburb St George, to pay a visit to the hospital or Krankenhaus.

Large and richly endowed institutions are not to be looked for in a free town whose territories include but a few miles of ground without the walls, and the greater part of whose revenue must necessarily be expended in keeping up a shadow of sovereignty and independent power; yet the hospital of Hamburgh, both for its magnificence and its general economy, would do honour to any city. The old hospital, or pest-house as it was called, having been burnt by the French in 1814, the present spacious building has been erected to supply its place. It was completed in 1823, at an expence of L. 75,000, and is intended to receive 1000, though it often contains 1200 or 1400 patients. It is situated in a fine airy and dry situation on the suburb of St George, and on the shore of the Lake Alster, from which it is supplied with water. The internal arrangements correspond with the outward appearance. The common wards are $40\frac{1}{2}$ feet by 24, with a height of 13 feet, and contain 13 beds, being at the rate of 972 cubic feet for each bed; the largest wards are 47 feet by 49, and contain 32 beds; and the entire number of rooms, with from 1 bed to 30, is about 200. Of these beds, 500 are set apart for medical, and 200 for surgical cases. The air is kept pure by common ventilators in the windows and in the floors of the upper story; and the possibility of stagnation is prevented by a spacious corridor of 10 feet in width, which runs lengthwise through the middle of the one floor and along each side of the other, into which the doors of the chambers open, and to which the air has at all times free access. There seemed much regularity in all parts of the house, and much subdivision of labour. One room, for example, was fitted up solely for the making of poultices, in which it was the business of one man to have them hot and ready at all hours. Another was set apart for the bandages, under charge of a person who was answerable for all it contained, and who kept a regular account of all his transactions with the different wards. The bandages of linen, flannel, &c. were all numbered and kept in separate dove-cots, ready of every length and breadth, at a moment's notice. The number of male and female nurses is from 80 to 90, and there are at least 50 other

people constantly employed in various occupations connected with the establishment.

The vast number of patients is accounted for by a portion of each wing being set apart on the one side for male and on the other for female lunatics, who amount in all to about 300; and by the circumstance of its being an hospital for the support of incurable, as well as for the treatment of hopeful, cases. Patients of the former class, if allowed to accumulate, would very soon either destroy the efficiency of our hospitals, or swell them to a magnitude even greater than that of Hamburgh.

The chapel for divine worship struck me as an exceedingly commendable part of the institution. It is a large handsome room of 55 feet by 34, is 30 feet high, and has inclosed galleries. Divine service is regularly performed in this chapel on Sundays and holidays; and the sick are at other times attended to by the pastor of the hospital, who has a very respectable salary of 4500 merks, or L. 260 a year.

The salaries of the medical men differ in amount. The chief physician is allowed L. 380 a year, but he must live near the hospital, and is forbidden to practice. Three other physicians, for a daily visit of one or two hours, are allowed about L. 30 a year. The principal surgeon receives L. 120, and has his practice. Three surgeons also live in the house, one of whom must always be at hand. They are allowed about L. 30 a year and their board.

Crossing the Alster in a boat, we returned to the city by the Damm Thor, and reached the Boursen Halle soon after two o'clock, where we found the President Bartels delivering the inaugural discourse. It was short, friendly, unambitious, and without pretence,—a striking contrast to the splendid and elaborate oration of Tiedeman the preceding year at Heidelberg. "We have here in Hamburgh," said the worthy old man, "no rich museums and collections to boast of, such as you have met with in the metropolitan cities, and the seats of universities, where your former anniversaries were held; nor am I at all fitted for filling this chair after the many eminent scientific men by whom it has previously been occupied; but we shall only esteem you the more, and show you the greater kindness, that you have thus so honoured both the city and myself by your

choice; and shall endeavour, by a reception worthy both of ourselves and you, to testify our sense of the important practical advantages to be derived from the prosecution and advancement of science."

Dr Fricke, as secretary, then read the laws of the society, which, as they may interest many of my readers who have never met with them in an English dress, I shall here transcribe.

- 1. At a meeting of German naturalists * and physicians held at Leipzig on the 18th of September 1822, it was resolved, that a society be formed, to be named the Society of German Naturalists and Physicians.
- 2. The chief object of this society is to afford an opportunity to the cultivators of natural science and medicine in Germany to become personally acquainted with each other.
- 3. Every person who has written upon natural science or medicine is admissible as a member.
- 4. The composition of a mere inaugural dissertation does not entitle any person to be considered as a writer.
- 5. A particular election is not necessary, and no diplomas will be given.
- 6. All persons are admissible to the meetings who employ themselves with natural science or medicine.
 - 7. Only members have the right of voting at the meetings.
 - 8. Every thing shall be decided by the majority of voices.
- 9. The society shall meet every year, and deliberate with open doors; to commence on the 18th September, and continue for several days.
- 10. The place of meeting shall be variable. At each anniversary the place of meeting for the ensuing year shall be determined.
- 11. A president and a secretary, resident in the place of meeting for the time being, shall conduct the affairs of the society till the ensuing anniversary.
- * Deutscher Naturforscher und Aertze. We have no words in our language corresponding to these two. The former means a cultivator of natural science in any of its branches, being much more comprehensive than our word Naturalist, as generally understood; while the latter includes all cultivators of the healing art,—surgeons as well as physicians.

12. The president shall appoint the hours and place of meeting, and arrange the business, and every one who has any thing to bring forward must notify the same to him.

13. The secretary shall have charge of the minutes, the ac-

counts, and the correspondence.

14. Both office-bearers shall subscribe only in the name of the society.

15. They shall make known as early as possible the authority conferred upon them by the immediately preceding assembly, and at the same time take measures for making the ensuing place of meeting as generally known as possible.

16. At each anniversary the office-bearers for the ensuing year shall be appointed. Should the appointment not be accepted, the office-bearers shall select another individual, and must at the same time appoint a new place of meeting.

17. Should the society lose one of its office-bearers, the survivor shall nominate another. Should it lose both, those of the

preceding year shall resume their office.

18. The society shall form no collections, and, except its records, possess no property. Whatever is laid before them shall be again withdrawn by its owner.

19. The expences of the meeting shall be defrayed by the

contributions of the members present.

20. These regulations shall remain unaltered for the first five years.

After the reading of the laws, and the list of members already arrived, the rostrum was occupied by Professor Struve from Dorpat, who delivered a long oration on the history, the importance, and the present state of astronomy. After magnifying astronomy above every other science that either was, is, or ever will be cultivated, he adverted to its history during the last hundred years. From this review he concluded, that during that time the main advancement of astronomy was due to Germany;—that at the present day Germany cultivated it most assiduously, and made the best astronomical instruments,—a circumstance we are supposed to acknowledge, by engaging Repsold of Hamburgh, (whom they dignify with the name of immortal Repsold,) to furnish a transit instrument for the

Edinburgh Observatory; -that after Germany Russia came next as a patron of astronomical science, by the building and equipping of observatories; -then follow England and Italy, France being lowest of all, having only two observatories at Paris and Marseilles. This discourse was neither judicious, nor, I believe, in general well received. No one science needs now-a-days to be exalted at the expence of others. Every man naturally ranks highest that particular branch of science to which he has dedicated himself; but he cannot expect to take other men along with him when he depreciates the departments to which they have with equal ardour addicted themselves. Nor is it necessary to drag in every name to exalt the scientific character of one country above that of other countries. Granting, as Sir James South has done in the Literary Gazette, that Germany deserves better of astronomy than England does,-yet why claim for that country the honour of names and labours which other countries will not concede?-" Why claim for Germany," said a Polish professor to me, " men who were countrymen of mine?" And though the Herschels, we may add, be of German extraction, their labours at least are English.

Professor Wendt from Breslau followed next, and read a memoir on Animal Magnetism. Of this paper there were various opinions. Some thought it very wonderful and very interesting,-a greater number thought it all sheer nonsense and delusion, -and some did not scruple to call the man a fool. "If the twentieth part of what he told us were true," said an eminent individual to me, "I would forgive him." But Wendt is known as one of the first medical men in Germany, and the author of many valuable medical treatises, of which I have a list before me of eleven published between 1803 and 1826. He professed himself to be no magnetiser, and therefore many thought him not only as a competent judge, but, as a man of honour, entitled to some degree of credit, when he related merely the effects he had seen exhibited through the agency of third parties. But no man will believe, nay can believe, the marvellous effects of the mysterious influence said to be evolved during the manipulations of this science, unless he have seen them with his own eyes; and yet it is hard to brand honourable men, who affirm they have witnessed them, with the epithets of fool and deceiver. Believers in the science are not fond of talking it over with the uninitiated; but, among the medical men of Germany, there are many secret converts who are only withheld, by the fear of ridicule, from openly avowing their faith. One of these I met with-an individual who had in one instance magnetized a patient-and certainly the details of the case were very extraordinary, and some of the more striking features of it attested by other medical men he had called in as witnesses. But he spoke of the power of magnetizing as a secret and almost sacred power of which he understood nothing,-which he had never employed but this once, though with success,-and which he never would employ again, except in some case of urgent, and otherwise hopeless, necessity. When one cannot assent to statements which appear incredible only, perhaps, because we have not had the same evidence of the senses as has brought home conviction to others, we ought at least to treat the judgments of honourable men with some degree of respect.

These two orations, followed by some announcements respecting future proceedings, closed the business of the first public sitting. The members then retired, the mineralogists, the botanists, the zoologists, &c. into separate apartments connected with the great hall, that the sections might be constituted, and choose their presidents. Berzelius was elected president of the chemico-physical section, and, on his declining, Pfaff was named in his stead, and Oersted, who had presided over the same section two years before at Berlin, took the office of secretary. The mineralogists chose Mons. von Struve, Russian minister to the Hanse Towns, to preside, and Mr Hartman of Blankenberg in the Hartz to be secretary. Counsellor Sachse from Ludwigslust in Mecklenburg Schwerin, was appointed president, and Dr Schmidt of Hamburg, secretary of the medical section. Dr Mertens of Bremen took the chair among the botanists, and Dr Siemers of Hamburg officiated as secretary. The zoologists adopted a more liberal, and perhaps a more considerate, plan. They chose Dr Leuckart of Heidelberg for secretary, and agreed to name a daily president, Professor Fischer of Moscow being appointed to preside at

their first sectional meeting. These preliminary arrangements being made, we adjourned forthwith to the Apollo Saal to dinner.

As the first public day, this was one of the great days of the feast, and, but for the bustle, and confusion, and crowding, and the impossibility of procuring seats near those of your own science, or with whom you wished chiefly to converse-to which inconveniences I have already alluded-it would have been a delightful entertainment. The dinner was good and plentiful, the music from the orchestra was excellent, and a score or two of amateurs had lent their voices for the occasion, and, seated at one of the long tables in the middle of the room, entertained us during the entremets with some of their best German songs. Among these "Was * ist des Deutschen Vaterland?" was sung with great-spirit,-a truly national song composed by one of their great poets called Arndt,-to use the language of a party of young Swedish students with whom I once spent a merry evening at Upsala. They had been singing our "God save the King," which is a great favourite in Sweden, when one of them remarked to me, "the song," I think, "was composed by one of your great poets called Brown."

This evening again the soirée was thinly attended, it having been announced that a new prologue in honour of the Naturforscher was to be delivered in the Theatre, and that tickets, as before, might be had at a reduced price.

19th.—This day being Sunday, there were no public meetings; but it had been previously arranged by the office-bearers, that it should be spent in an excursion of seven or eight miles down the Elbe. The Booths, two young Scotchmen, proprietors of a large botanic garden and nursery grounds at Flottbeck in the Danish territory, five miles from Hamburg, had handsomely invited the whole body of Naturforscher to stop in passing, view their gardens, and partake of a dejeuner à la fourchette, from which we were to proceed to the grounds and gardens of Mr Bower, occupying one of the finest and most romantic situations to be met with on the banks of the Elbe.

^{*} The reader will find this song with an English translation towards the latter part of this paper.

To see these grounds is a favourite Sunday excursion with the Hamburgers, to whom they are thrown open on that day on payment of one merk, about 15d. From this charge the Naturforscher were on the present occasion to be exempted.

At half-past nine A. M. the Naturforscher might be seen making their way from all parts of the city to the Nicolai Kirchhofe, where the Polizei had provided a large assemblage of carriages of all descriptions, droshkies, barouches, and open holsteins to convey the party, and, to prevent imposition, had already fixed and intimated the fare, (2 merks) which each person was to pay, for the entire excursion. Thus as they arrived they formed themselves into parties, and each party put in requisition the carriage which suited them best, paid their merks in advance, took note of the number of their vehicle, to prevent confusion on the return, and drove off merrily to Flottbeck. It was a fine morning, and the entire day continued delightful-a charming contrast to the perpetual rains which rendered almost every day disagreeable in Hamburg during the past summer. All this on a Sunday in Germany is mere matter of course, and, therefore, nobody made the slightest remark on the subject, either as regarded ourselves or the troops of men we passed here and there busily repairing the roads.

It was a fine sight as we drove along the rich and cultivated country, with here and there pleasant grounds and country houses, and an occasional peep of the Elbe on the left, sparkling through the trees—to see a long line of open carriages of all descriptions,—interminable before and behind, crowded all with happy faces, enjoying and anticipating enjoyment, with ladies head dresses appearing now and then—a sort of point de vue, among the dense grove of hats—and throwing a still more cheerful air over a scene which merry hearts, a bright sun, and a fair land, contributed all to enliven.

The garden of the Booths proved well deserving of a visit, and the breakfast was arranged and went off in a style, not only highly creditable to themselves, and, as we Britons thought, to their country, but to the satisfaction and admiration of all present. The garden is very rich in plants of all countries, cultivated for sale in great numbers. Among these were

reckoned 12 species of Dryandriæ, 30 species of Banksiæ, 70 varieties of Camellia, near 400 of Pelargoniæ, and 800 of roses, making alone many thousand specimens, arranged according to the natural orders. The nursery was equally rich in trees of every description. The hot-houses, Kalthauses as the Germans call them, are extensive, one of them glazed on both sides, being 200 feet long. One of the greatest curiosities exhibited was a model of the Rafflesia Arnoldi, taken from the well known cast in the possession of the Horticultural Society of London, and which deservedly attracted universal attention. The Booths gained great credit by their attention to the Naturforscher, and it is to be hoped that their repeated kindness to the botanical section will only make their establishment better and wider known, and secure it more extended patronage.

After an hour spent at Flottbeck, we drove again in cavalcade four miles further to the garden, or more properly the ornamented grounds of Mr Bower. The walks here were delightful, and laid out with great taste; and the view of the Elbe from the rising grounds was one of the finest which the banks of the river any where afford. An ornamental tower and Chinese pagoda, erected on two elevated spots, and commanding a fine view, were objects of great attraction to the party; but on repairing thither, we found ourselves, with the majority of our friends, shut out. Mr Bower chose to open them only to a select few-a prohibition which he regretted when too late, and which, with one or two other trifling things of the same sort, thought to show more of the narrow-mindedness of the Hamburg merchant than any one then and there expected, obliterated any slight feeling of obligation we should otherwise have felt to Mr Bower for the privilege of walking in his grounds.

Having separated from my party, and joined some other friends, I found, on repairing to the gate, that I had wearied out the patience of my fellow voyagers, and that the carriage of which I was a shareholder had gone off without me. Fortunately I found three distressed Germans in a similar condition, and after walking a couple of miles, we succeeded in discovering their vehicle. This brought us all back to the Apollo

Saal by 5 P. M. in time to take part in the usual feeding operations, which on this day, from many being delayed longer even than ourselves, were carried on more quietly, and with less crowding than on either of the preceding days. The evening, as Sunday evenings often are in Germany, was spent by the nimble ones of the Naturforscher in dancing with the fair Hamburgesses; music being provided, and a room fitted up for the occasion behind the dining-room in the Apollo Saal. Each thus had his mode of amusing himself at his own choice—those who chose danced in the ball-room—those who liked tobacco and strong waters partook of their segars and punch in the smoking-room—and those who chose none of these things, betook themselves to a quiet confabulation in the apartments where it was forbidden either to smoke or dance.

20th.—This morning the different sections met to discuss matters connected with their several sciences. They were arranged as follows:—

- 1. The section of mineralogy met from 8 to 10 in the morning, in the house of his excellency M. von Struve, the Russian minister.
- 2. The botanical section, from 10 to 12 in the morning, in the house of Professor Lehmann.
- 3. The section of zoology, zootomy, anatomy, and physiology, from 8 to 10, in the anatomical hall of the Kurhaus.
- 4. For practical medicine, in the Boursen Halle at the same hour—from 8 to 10. This section had also occasional meetings in the evening.
- 5. For physics and chemistry, from 10 to 12, in the auditorium of Dr Schmeisser.
- 6. The pharmaceutical section, afterwards formed and presided over by the venerable Trommsdorf of Erfurt, whose journals of pharmacy have been long known, and his system of pharmacy so much esteemed in Germany, met in the same place from 12 to 1.

By this arrangement, had any one wished it, he could not easily have attended more than two sections, except on alternate days, and the hours could not have been otherwise or more conveniently arranged. From 12 to 2 was dedicated to seeing sights—visiting the hospital and other institutions, or

examining collections, and was the only leisure time that could be so employed. At two o'clock the general public meeting took place in the Boursen Halle—at four, dinner was in waiting at the Apollo Saal—and again between dinner and the evening reunion, you might have an hour or two to dispose of for any purpose of your own.

It is not my intention to give any detailed account of the proceedings of the several sections. For this no one individual can be qualified, simply because it is impossible for him to be present to witness them; and a mere list of papers read, and subjects discussed, which forms the substance of the report drawn up by the secretaries of the sections, would possess little interest for the general reader. In the Isis only are these papers given at any length; but Professor Oken possesses advantages over even the secretaries of the sections, in the willingness of every one to furnish copies or abstracts of their papers to the father and founder of the society. And though much interesting matter is at times brought before the sections, yet the communications thus made, form neither the main object of these yearly assemblies, nor the most important of the benefits to be derived from them. Men learn to know, to esteem, and better and more justly to estimate each otherjealousies are removed-friendships are formed-and thus personal rivalry-harsh language and controversial sparrings are diminished in philosophical writings; "for you cannot," said Oken to me, "so harshly speak of or condemn in so unqualified a manner the theoretical speculations or experimental results of a man with whom you have held agreeable personal intercourse, as we are too prone to do of those whom we have never seen or conversed with."

I attended the mineralogical and chemico-physical sections. The proceedings of the former consisted chiefly in the exhibition of new, rare, or beautiful minerals, and of some optical instruments by Professor Marx. Few papers were read, and of these few some were unworthy of the place. Among these was one on primitive formations, by Menge, the well known mineral-dealer from Lubeck, who had also, by some means or other, contrived to convert the place of meeting into a shop for the sale of minerals.

The chemico-physical section was more worthy of the time and place. At its meetings many interesting notices were given, and a few important subjects discussed. There also, however, some rather lengthy specimens of trash were inflicted upon us, especially towards the end. Most of the time, indeed, was taken up by inferior men, as is to be expected where they form so decided a majority.

The botanists, I believe, went on very smoothly. They are an enthusiastic class of men, and captiousness or feelings of personal dislike probably discover themselves less frequently among them than many other tribes of naturalists. There is little in their science, indeed, to call such forth,—it is all beautiful,—a roaming among flowers,—and requiring little deep thought, few disappointments are met with in the study, and something more than the science, therefore, is to blame when a botanist's equanimity is disturbed.

The zoologists (in number 52) also, from all I could learn, were generally well satisfied with each other, and with their labours. The only case of discontent or dislike with the proceedings of which I am aware, was that of Professor Leuckart of Heidelberg, the secretary of the section, who fretted himself, and endeavoured to disturb others, about a matter in which he should rather have cheerfully acquiesced. To this I shall have occasion to advert when I come to speak of the proceedings of the last public day.

The medical section was the most numerous, and the discussions occasionally assumed a very animated character. The great amount of business made it necessary to have occasional meetings in the evening. There, too, as in the other sections, some papers would have been willingly dispensed with; and a very general dissatisfaction was expressed, fortunately in the absence of the author, at the double reading, first in English and then in German, of a lengthy paper on the non-contagious nature of the yellow fever, by the only American who attended the meeting. Whatever the merits of a paper might be, indeed, it was rather too much to occupy two hours with it, when the whole time the section could command for transacting all its affairs could hardly exceed twelve hours. When alluding to the yellow fever, I cannot help jotting down a very

good New York pun told me by Dr Jamieson of Baltimore, the author of the above paper. "A countryman walking along the streets of New York, found his progress stopped by a close barricado of wood. 'What is this for,' said he to a person in the street. 'Oh that's to stop the yellow fever.'—'Aye! I have often heard of the Board of Health, but I never saw it before.'"

Of the pharmacologists I heard nothing. Under their president, Trommsdorf, they discussed tinctures and electuaries; and people seemed to think it was soon enough to have to do with them when they could no longer do without them.

In the Boursen Halle, at two o'clock, Professor Oersted of Copenhagen first addressed the meeting, in a long discourse on the application of mathematics to physical science.

Of Oersted I have given some interesting notices in a former paper on the "Scientific Men and Institutions in Copenhagen."* I shall here add a slight sketch of his career. In 1799, he took his degree of Doctor of Philosophy, and the following year began to lecture as a privatim docens on metaphysics, to which his mind retains still a decided inclination. In the same year, he was named Adjunctus Lector of pharmacy in the medical faculty. The three following years he spent in travelling through Germany, Holland, and France, and returning in 1804, began to lecture on physics and chemistry. The history of the chair of physics in the university of Copenhagen is rather curious. In 1736, it was suppressed by Christian VI. and an additional professorship of Divinity instituted in its place. At the same time it was ordered that a professor of medicine or mathematics should give lectures on physics. Accordingly, Professor Krutzenstein of the medical faculty gave lectures for thirty years, and dying in 1795, was succeeded by Aasheim, also professor of medicine, who died in 1800. Professor Bugge of astronomy was then appointed to lecture on physics, and in 1806, Oersted was appointed professor extraordinarius. In this year Zeise, now professor of chemistry, became his first pupil, and under his care commenced a course of study, which, afterwards extended and completed in France under Chevreul, promises at no dis-

^{*} See this Journal, New Series, Vol. iii. p. 1.

tant period to yield him a reputation honourable alike to himself, to his talented instructor, and to the university of which he is a member. Besides his lectures on physics, his proper department, Oersted has at different times lectured on chemistry, principally on general principles, or what he calls the philosophy of chemistry, and on electro-chemistry, and his lectures have been much esteemed and numerously attended. The heir-apparent, Prince Christian Frederick, has frequently honoured him by his presence, and he has also lectured in German and French to the diplomatic body. The Society for the Diffusion of Natural Science founded by Oersted, and patronized by Prince Christian, has organized a system of popular lectures, not only in Copenhagen, but also in other towns of Denmark. These lectures in the capital are delivered by Oersted, Zeise, and Forchhammer, are open to all, and command an attendance of 60 or 80 auditors.

Oersted's experimental are far more valuable than his theoretical memoirs. "Il fait des belles experiences," said a German doctor to me, "c'est ce qu'il fait bien—mais quand il ecrit—nons ne trouvons ordinairement que des phantasies." This expression is no doubt much too strong; but it shows the general opinion of his tendency to speculation.

To Oersted's philosophical memoir succeeded a sort of non-descript essay on the tides, by Professor Willebrand of Giessen. He laboured to show that the theory of lunar attraction was not sufficient to account for the phenomena. He considered them to be caused by some unintelligible principle of circulation, which he invited the members to discuss with him in the section, or in the steam-boat, during a proposed trip to the island of Heligoland. But I believe most people were so perfectly satisfied with what they heard from himself, that they never thought of introducing it in the physical section; and on board of the steam-boat, most of the inlanders found themselves so much occupied with another kind of circulation, that they had no leisure to attend to that of Professor Willebrand.

Professor Pfaff, of Kiel, next came forward, and in an extempore discourse of a lively, humorous, and interesting kind, spoke of the application of chemical analysis to vegetable substances of every-day consumption, adverted then to the peculiar principles found in coffee, a substance so generally used,—and exhibited some beautiful pure white crystals of caffeine, which he recommended to practical physicians as likely to prove valuable in medicine as a mild febrifuge. He exhibited also a new caffeic acid which exists in the coffee in combination with lime and magnesia, and to which is owing its peculiar aromatic smell. This address, enlivened with many witty remarks, gave general satisfaction, being intelligible, not only to all the members, but to the auditors, male and female, who crowded the galleries.

Caffeine is generally supposed to be a discovery of Pelletier, but its true discoverer was Runge, a young professor of chemistry at Breslau in Silesia. Several years ago this young man published a book, in which he described various new principles obtained from vegetable substances, and, among others, also from coffee; but the book was written in so peculiar a style that very little attention was paid to it. The substances described were also often impure, so that the properties he attributed to those which he obtained, are not always to be found in the purer substances since prepared by others; yet still the honour of the several discoveries, and of making the first steps in this interesting field, is due to Runge; -he should not, therefore, be forgotten in the history of the science. Runge was at the meeting in Hamburg, which, I believe, is his native place-a true specimen of the German student-long lank hair-a careless free manner-fond of his pipe, his friend, and his bottle of beer. He exhibited in the physical section, the results of a long-continued and elaborate examination into the chemical nature of various natural orders of plants, gathered in the different months of the year, and their reactions with the metallic salts, those of copper, tin, iron, bismuth, lead, as shown in their colouring powers upon cotton cloth. The changes that take place in the juices of plants from the first months of spring to the end of autumn, as exhibited in the change of their colouring properties, was very striking and very interesting.

The dinner to-day was crowded and uncomfortable. A diversion was created after we had finished our coffee by a cry of fire; and curiosity led many even of the Naturforscher to the spot. It proved to be a large building in the centre of the city,

which was entirely consumed. The regulations for fires, as they must necessarily be in so crowded a city, are very strict. A double guard is called out, and none are allowed to approach the spot. Should any one contrive to force his way in, a bucket is immediately put into his hand, and he is set to work.

21st .- On the breaking up of the sections to-day at noon, all the Naturforscher adjourned to the botanic garden to partake of an elegant dejeuner, prepared at the expence of the good city of Hamburg. The breakfast at the Booths had no doubt given occasion to this, -the city could not be out-done by two private individuals. On a pleasant slope facing the city, and having hot-houses on either hand, were erected two large tents, gaily and tastefully ornamented with flowers in festoons, and garlands of all descriptions, in which were set out two long tables groaning under eatables of every kind and flavour, pleasing at once to the eye and the palate, and liquids of every strength from the French eau de vie to the lightest claret. The one tent was monopolized by the ladies, the botanists, and the zoologists; the other, into which I happened to stroll, was the resort of the heavier, but not the duller, men of the mineralogical and physical sections. Not that this separation was strict; it was only general, and probably accidental, for we had with us Chamisso of the botanic garden in Berlin, a poet, botanist, and traveller, who accompanied the expedition of Kotzebue round the world, a most amusing, witty, and cheerful man. After a short time, the champagne began to flow among us, and presently came the drinking of toasts, and hobnobbing, and making of speeches, and bandying of wit, and roaring of laughter, to such a degree that the sober ones wondered, and the merry ones came to share, if possible, in the amusement. Pfaff and Chamisso were the leading men in this display of wit and humour. And though some of the grave ones shook their heads at what they were pleased to term our riotous behaviour, yet I look back to that hour as one of the happiest I spent in Hamburg.

The botanic garden of Hamburg is in high order, and does much credit to Professor Lehmann, who superintends, and has formed it. It was established so late as 1821, and is already one of the richest in Germany. Dr Lehmann gives lectures on botany, and Oldendorf, the managing gardener, has a school of practical gardening—a species of institution which might very well be connected with our botanical gardens in this country. It would not only train up a race of practical gardeners well instructed in botany, but might also be so managed as to cause not only a material saving, but probably an actual increase to the funds of the institutions.

Two o'clock P. M. saw us again assembled in the Boursen Halle. Dr Simon of Hamburg first addressed us in a long prosy oration in praise of natural science and medicine, which was by no means well received. It is a pity that the officebearers should not have some controlling power over the papers brought before the general meetings, that a proper and worthy selection might be made to be read in public, that men of talent might not be condemned to sit by hundreds, listening to delirations spun out by the hour, and by men of no reputation; while at the same time they have the mortification to think that such exhibitions go forth to the world as specimens of what so grave, and learned, and philosophic a body can do. I have spoken of the general simplicity of the Hamburgers in matters of science; and yet, even among them, I learned after the meeting was over, that the impression had gone forth, that the transactions of the public sittings, to which only they were admitted, were in general unworthy of a society of such high pretensions. A similar idea seems to have entered into the mind of Tiedeman, for, at the meeting in Berlin in 1828, he proposed that such a power of selection should be intrusted to the office-bearers and certain others. After a long discussion, however, the motion was negatived by a small majority of eighteen, it being supposed by many to interfere with the general liberty and equality of all.

Next came on the appointment of the place of meeting in 1831. The subject was introduced by Count Sternberg of Prague, who expressed the wish of the imperial government, that the society should assemble in the ensuing year at Vienna. After some little discussion this was agreed to, and Baron Jacquin of Vienna was appointed to the office of president, and Von Littrow to that of secretary.

I have repeatedly spoken of presidents; but "we have no presidents," said Oken to me; "no man above another. We are all on an equality; we have a first and second geschäftsfuhrer,

to manage the business for us, but it is no elevation."—" It is nothing of which another need be jealous," said a botanist to me; "the newly appointed geschäftsfuhrer feel, I daresay, nothing elevated." So it is the custom of some to talk of these official situations, and yet it is a high honour nevertheless,—and an honour to be proud of,—and one which is felt as such, as well by those on whom it is bestowed, as by those who think themselves unjustly passed over. And, disguise the name as we may, in what age, or in what country, would it not have been an object of ambition—a laudable and praiseworthy object—to preside at the meetings, and to direct the deliberations of four or five hundred of the most learned and intelligent men of the time?

These meetings were for some years an object of jealousy to the German rulers, and their proceedings were carefully watched during several successive anniversaries before they paid them any outward attention. Learned professors, it is said, were sent to the assembly, not as spies of course, but merely to bring home intelligence from so interesting an association! The minister felt much interested in the advancement of scientific intercourse, and was anxious to hear what passed at these large assemblies. If his friend, Professor -, would like to go, he would procure him a grant of money to defray his expences. The professor, a man after his own heart, jumped at the proposal, went to the meeting, and came back eagerly to satisfy the minister's amiable curiosity. One hears such stories occasionally when sitting tête-â-tête with a German naturalist, during the intervals of puffing a segar, or sipping a glass of punch; but it is chiefly the young men who are indiscreet enough to tell them, not having yet experienced how necessary it is to have the fear of arbitrary power continually before their eyes.

That the German rulers now patronize these meetings, is an evidence that their former jealousy was without foundation, and that science alone is sought to be promoted by these comings together. Yet even now a species of unfelt, perhaps, yet nevertheless, real control and surveillance, are exercised over them by the governments of the places to which they are invited. The king and his ministers agree to invite the meeting to their

chief city; "but we must have professor so-and-so for president, and Dr so-and-so for secretary, and then we can keep all things right." Accordingly, a deputation of three or four persons is sent to the meeting—they deliver their commission—and, having made out a good case, the thing is agreed to. Then one of these men gets up and proposes another of them as a fit person to be president—a third rises and suggests that the last speaker be appointed secretary, and the matter is carried of course; for, besides the delicacy felt in regard to personal opposition, it is understood that these individuals have the confidence of the government, and will be able to do most for the reception and entertainment of the assembly.

The president and secretary have the sole and entire disposal of all the time of all the members during the appointed days of meeting; he who guides the president, therefore, moves all the others like so many puppets. Such control is the necessary consequence of their connection with, or dependence upon, men in power, where power is regulated and checked by no constitutional law. So long as they met in small cities as an independent body, unaided and unnoticed by those whom political power or wealth only had made great, they had a perfect control over their own "sayings and doings." But the German princes have found a sure way of taming the lion they feared when he arose among them shaking his mane; they have thrown him a sweet sop, and he has swallowed it, and laid him down to sleep. For the sake of mere natural science, perhaps, it is as well that it should be so; but why should men of science be gagged?—the lights of their age set " under a bushel?"—that they shall be permitted to congregate in this or that city, but shall be forbidden to hold colloquy on subjects the most intimately connected with the welfare of their race? Such restraint is not heard of or seen, yet it is secretly felt and laboured under by all. A naturally open or bold man, in some moment of excitation, shakes it off; but when he cools down, he feels surprise at once, and regret for his momentary rashness, sensible that now he has subjected himself to a suspicion that will cling to him for years, retard his advancement in life, and follow him wherever he goes.

In illustration of this, they tell a story of Prince Metternich or Mitternacht, (Midnight,) as the punsters call him in Ger-

many. The Emperor, it is said, heard often, and saw many accounts of these meetings, and expressed his surprise that they were not resorted to by men of science from Vienna. One of the maps engraved for the use of the members, and containing only the names of the places from which individuals had come to the meeting, was brought to him, and he was nettled that his capital was not even mentioned in it. Supposing it to be the want of funds which kept his professors at home, he intimated that funds should be provided from the treasury for defraying their expences. On the approach of the next meeting, accordingly, several individuals applied for passports to the director of police. "Well, Doctor, you want a passport? What are you going to do at ---- ?"-" I am going to the Naturforscher Versammlung."-"Oh, you are going to this meeting, too, are you? But what do you think the minister will say to it? You know he dislikes all these meetings."-" He can have no objection surely, when his majesty has expressed a wish that we should go, and has granted money to defray our expences."-" Very true, very true, but I would recommend you to think better of it. You may have your passport if you choose, but I would advise you as a friend not to go. You are a candidate for so-and-so, and you are very likely to have the appointment; but, should you give offence, ----" -" Il est comme un Roi ce Mitternacht," said a Halle man to

This story I have heard repeatedly, and it does not appear at all incredible; but whatever may have been the former feelings of the court and ministry of Vienna in regard to these meetings, it is certain that every thing will be done in September next to make the anniversary of 1831 an era in the history of the society.

After the nomination of the office-bearers, a discussion arose as to the most proper way of announcing to learned men the place of meeting, &c. for the ensuing year,—whether by particular and private letters from the president and secretary, or by general and public announcement. This matter was at length entrusted to the discretion of the geschäftsfuhrer.

It had been announced at the meeting of yesterday that, for the entertainment of those chiefly who, living in the interior, might never have seen the sea, or sailed down the Elbe, a trip to Heligoland had been projected; and that the Rotterdam company had placed a large steam-boat at their disposal for this purpose. To-day, it was intimated that those who intended to go must be on board by five o'clock to-morrow morning; and that there would be no public or sectional meetings for the three days it was intended the party should be absent. announcement gave to many great dissatisfaction. It was kindly meant by the directors, but it was injudicious thus to separate the Naturforscher into two bodies; and, for half the time they were to be in Hamburg, to prevent them from holding communion with one another. Not more than half the number of strangers availed themselves of the opportunity of seeing the sea; and meanwhile the other half were left to employ themselves as they might. But the true inlanders rejoiced at the proposal, and it was amusing to hear their grave and earnest inquiries about the nature and mode of operation of the see krankheit they had so often heard of, and were now destined to experience.

The party sailed the first day to Cuxhaven, where they spent the night uncomfortably enough I believe; the second was spent in Heligoland, and they reached Hamburg again on the third day. There were few who on their return could not speak feelingly enough of the see krankheit; and some found one day on shore little enough to restore them to their propriety. I did not accompany the expedition, but Professor P—— of Edinburgh, has furnished me with the following lively account of the sufferings and privations it had to undergo.

"It would require a better memory or a more poetical imagination than mine, to infuse interest into an account of the excursion to Heligoland, or make it worthy of any but a very brief notice. Scientific interest it had none; for though we had Enke and Moll on board, and other less distinguished Astronomers, the bearings of the rock we were bound to had already been laid down too accurately, to give them even a pretext for making new observations: and the Geologist, though he might pick up from the needy natives a few cornua ammonis and belemnites, had little to glean, by his own industry, in the mass of loose friable sandstone, deeply tinged with a ferru-

ginous red, which composes the island. And what could the Zoologist do, where the greatest variety, in his way, was the governor's cow—sole specimen of the genus Bos to be found in Heligoland. The Botanist, indeed, if he happened to be one of those mediterranean Naturalists who had never before seen the sea, was evidently filled with astonishment at those wonders of the vegetable world which you regard at Portobello with such stoical indifference; and loads of sea tangle and fuci are, I doubt not, now reposing in glass-cases in the interior of Germany, differing in no respect from those which we barbarously burn into kelp on the shore, or spread over our fields as manure.

" Nor can I say that the social pleasures of this expedition quite compensated for the want of scientific interest. A steamboat is not the best place in the world for making or cultivating new acquaintances, particularly where the majority of the party are Germans, and without any infusion of French vivacity; and when many of those best able to amuse and instruct were at one time suffering from the nausea of a first voyage, at another frightened out of their propriety by a breeze of wind and a swell of the sea, which must have been alarming enough to novices. Nor was there much on shore to make us forget the lugubrious aspect of things on deck. For want either of previous arrangement or of fit accommodation on the island, the party, which might amount to seventy or eighty, did not meet to dine together, but were scattered, in little knots of ten or twelve, often strangers to one another, over all the houses, private and public, of the village. This, I believe, was generally felt as but a poor compensation for the roar and merriment of the Apollo Saal at Hamburg: for though, even there, you and I may have missed those after-dinner speeches, which, in our country, do sometimes nobly redeem the clatter of knives and forks, and give an intellectual character even to a city feast, yet there was much to prize in the joyousness, good humour, and mutual kindliness that seemed to animate the whole company. Nor shall I readily forget the energy and intensity of feeling with which the songs, whether Bacchanalian or Patriotic, were sung in this assembly of savans. One of the latter class of songs pleased me so much, that I amused myself, during the

dreary parts of the naval expedition, with turning it into hobbling rhymes. The original, however, I must say, is not much better, as far as the verse is concerned: it was the thought, and the enthusiasm it excited, rather than the measure, that delighted me. I send you the original to remind you of it, and add my own version.

Which is the German's Fatherland?
Swabia, perhaps, or Prussia's sand?
Where on the Rhine the wine-flood streams?
Or round the Belt the sea-bird screams?
Oh no! not so:—an ampler space
The German's bounding line must trace.

Which is the German's Fatherland?

Is't Pomerania's barren strand?

—Where "Munich all her banners waves?"

—Or Time and Conquest Austria braves?

Oh no! not so, &c.

The German's country shall we seek
Where climbs the Swiss the Glacier peak?
Where high Tyrol her mountains piles?
Or Stiria's Alpine desert smiles?
Oh no! these countries please me well,
But German land must mightier swell.

Where then can be this Fatherland, That knits its sons in filial band? What is the silken cord that binds In mutual love so many minds?

"Where'er is heard the German tongue, "And German hymn to Heaven is sung, "Whate'er the clime—the kindred—be, "That land—that land is Germany."

Then blest be thou, from age to age, Land of the Hero, Bard, and Sage! Still loyal be thy sons and true, Worthy the stock from which they grew!

Still foremost to pronounce the vow, With fervent hearts, as we do now, (Recorded let it be on high)
For Thee to live, for Thee to die!

Was ist des Deutschen Vaterland?
Ist's Preussenland? Ist's Schwabenland?

"Having thus brought you back to the Hall of Apollo from the barren rock which you were lucky enough not to be banished to, I have only to regret, &c. &c."

22d. This day I spent with Dr Traill in a visit to Harburg, on the Hanoverian side of the Elbe. We crossed over in a steam-boat which plies regularly; and after wandering for some hours among the sand-hills beyond the town, collecting flints with impressions of shells, and other organized substances, which are by no means rare, we were brought back again to Hamburg

Ist's, wo am Rhein die Rebe blüht, Ist's, wo am Belt die Möve zieht? O nein! nein! nein! Sein Vaterland muss grösser seyn!

Was ist des Deutschen Vaterland? Ist's Baierland? Ist's Steierland? Gewiss, es ist das Oesterreich, An Siegen und an Ehren reich! O nein, &c.

Was ist des Deutschen Vaterland?
Ist's Pommerland? Westphalenland?
Ist's, wo der Sand der Dünen weht?
Ist's wo die Donau brausend geht?
O nein, &c.

Was ist des Deutschen Vaterland?
So nenne mir das grosse Land!
Ist's Land der Schweizer? Ist's Tyrol?
Das Land und Volk gefiel mir wohl!
O nein, &c.

Was ist des Deutschen Vaterland?
So nenne endlich mir das Land!
"So weit die deutsche Zunge klingt
"Und Gott im Himmel Lieder singt!
"Das soll es seyn!
"Das, wack'rer Deutsche, nenne Dein!"

Das ganze Deutschland soll es seyn!
O Gott vom Himmel, sieh' darein,
Und gieb uns ächten, deutschen Muth,
Dass wir es lieben, treu und gut!
Das soll es seyn!
Das ganze Deutschland soll es seyn!

by six o'clock in the evening. One curious circumstance I may mention in regard to the sand-hills around Harburg. Here and there among the brown sand occur small white spots of two or more feet in diameter, which are carefully dug out for house-hold purposes. These spots penetrate the hills to a considerable distance, like large solid pillars, and they are followed in the process of excavation by shovels with handles ten or twelve feet long. The only one I saw in the act of being dug out was inclined to the horizon at an angle of perhaps 50°; but I did not learn whether such be their general directions. It would be difficult to assign any satisfactory reason for these singular deposits.

The soirée in the Apollo Saal this evening was quiet and pleasant, and I spent a couple of very agreeable hours with Professor Berzelius of Stockholm.

23d. The sections this day met as usual, having agreed, on seeing their own strength yesterday at dinner, to resume them even during the absence of the Heligolanders. In the chemical section Professor Pfaff endeavoured to show that the generally received theory regarding the developement of electricity by induction is erroneous, and that of two conductors brought near each other, if the first be positive, both extremities of the second are positive also. I regretted very much that I could not follow his language on this very interesting and very important subject, which the experiments of Biot were supposed formerly to have settled, but on which those present best qualified to judge were inclined to agree with Pfaff. It is to be hoped that a memoir on the subject may before this time have been published by him in some of the German journals.

The tower of St Michael's Church was to-day a place of considerable resort. It is 456 feet high, and gives a distant view over the Elbe and the surrounding flat country. No one can have any conception how the city of Hamburgh is packed together, unless he resort to some such elevated spot, where he can look down upon the limited space which daily and nightly confines 106,000 souls. This tower of St Michael's is interesting as the place from which Benzenberg in 1803 made his first experiments on the diurnal motion of the earth. But here it is well known he obtained no good results, from the constant pre-

sence of currents, which disturbed the true descent of the falling body. He was obliged, therefore, to have recourse to deep mines, in which he found that a heavy body in falling actually deviated from the perpendicular by a quantity agreeing very nearly with the formula of Laplace.

This evening also there were comparatively few at the soirée, and the ladies in the dancing room looked anxiously but in vain for partners, and it was really melancholy to see them all sitting so solitary and forlorn.

24th, The Heligolanders returned this evening, and many of them joined us in the Apollo Saal, but many also found it better to remain at home and recruit.

25th, This was the last day of the meeting, and many persons whose time was limited had already gone. The sectional business was entered upon as usual by all parties, and the animal and plant men exhibited the spoils with which their visit to the sea had enriched them.

At two the final assembly took place in the Boursen Halle. Professor Fischer read the first address, being an account of the botanic garden at St Petersburg. This garden, at present in so flourishing a condition, is entirely the work of Professor Fischer. Before his appointment there was a place called a botanic garden, containing at most 600 species. It now boasts upwards of 12,000. From Persia, Caucasus, Armenia, and Siberia, it has received great accessions—while M. Riedel, the botanist who accompanied M. Langsdorf to Brazil, has lately brought home upwards of a thousand living plants from that country. They have been preserved by the method already known in England, of planting them in pots, and rearing them so on the spot where they are indigenous. By this means their preservation is far more effectually secured than when they are dug up in the woods and sent on board before they have had time to take root.

Professor Fischer was succeeded by the secretaries of the several sections, who read to the assembly an outline of what had been done in each of the sectional departments. On reading his report of the proceedings of the zoological section, Professor Leuckart took occasion to animadvert in a few ill-natured words on the appointment of Englishmen to preside in that sec-

tion: "It is the first time," said he, "that a foreigner, who did not understand the language, has been appointed to preside at a meeting of German naturalists." I know not what particular spite the worthy secretary could have against either Mr Gray or Dr Traill, the two gentlemen on whom the honour was conferred; but it was evidently spite, or ill-feeling of a similar kind,—for both of our countrymen knew something of the language, and even had they not, it would have been only consistent with that true courtesy which distinguishes the Germans, but which the professor seemed to have lost on his way from Heidelberg, to have dignified these foreigners, for their country's sake merely, with this horary honour.

The bad taste and bad feeling of Leuckart's allusion was generally felt, and Dr Siemers, who rose next to read the report of the proceedings of the botanical section, took the opportunity of inserting a few words, which made ample amends for all that had passed. In the name of the botanical section, he then proposed that the meeting should send a letter to the East India Company, returning thanks to that body for the munificent gifts of Indian plants which they had made to all the celebrated botanists in Europe, and to pray that Dr Wallich might be allowed to remain longer in England, to carry on the work he had begun so splendidly, and which no one was so well qualified to finish. A letter embodying the latter request was also proposed to be sent to the king of England, as likely to influence the Court of Directors, and copies of both, as drawn up by a committee of the botanical section, were read to the meeting. After some discussion, it was agreed to refer the matter to a committee, by whom the letters were ultimately dispatched. It is to be hoped that the Court of Directors will accede to the wishes of a body of men so capable of pronouncing correctly on the merits and labours of Dr Wallich.

A medico-philosophico-physico-juridical essay was then read by Counsellor Stierling of Hamburg, and a proposal made by Dr Stintzing, also of Hamburg, for the publication of an Encyclopædia or Journal of Science by the Society, neither of which gave rise to any observations. The business was now finished, and the President Bartels, after a short address, pronounced the anniversary for 1830 to be at an end. This was the signal for the ex-president, who in this case was Professor Tiedeman of Heidelberg, to rise and deliver the usual address of thanks to the town and authorities of Hamburg, for their kind treatment and general attention. This address was received with

great applause.

The dinner table to-day was unusually crowded; many Hamburgers had been admitted, and all the adjoining apartments were put under requisition. The music and the songs, and the mere eatable part of the dinner, were of the best description, but nothing could reconcile me to the noise, crowding, and confusion, and to the necessity of sitting in a side room, and among men one had never seen before. After dinner some toasts were given, and the only speech I heard during all these feastings was by the lively Pfaff of Kiel, who, after lauding the city and its trade, concluded by proposing, "The apothecaries of Hamburg, who had contrived to change chemistry into alchemy!"

The whole affair was finished off at night by a splendid ball in the large room, hitherto devoted to feasting; and the beauty of Hamburg was all assembled to grace the departure of the Naturforscher. The dancers kept it up till a late hour, while the punch and segar men in their own apartment seemed equally unwilling to break up their pleasant fellowship. But they dropped away one by one, and the crowd of scientific men whom Saturday saw squeezing each other in the press, talking loudly, or joining with enthusiasm in the chorus of a patriotic song, were seen on Monday-solitary, silent, and far apart,-scattered to the four winds of Heaven.

Such is a general view of the proceedings of the Society of German Naturalists at their ninth anniversary. To me it proved exceedingly interesting. If I have been able to infuse a tithe of this interest into the above account of it, my readers will not regret that I should have spun it out to so many pages. It was said not to have been so splendid as that of Berlin, but this was owing to the locality, not to the members. Of strangers, there came to Hamburg 258,—a number nearly as great as met together at Berlin; and where the chief object is to see and to learn to know men, their presence is sufficient. So I found it, and I shall never regret my visit to Hamburg on this occasion, which gave me an opportunity not only of becoming acquainted with many men I had never before seen, but also of meeting with persons I had formerly learned to know and esteem, but whom I might otherwise never have had the pleasure of meeting a second time.

The first object of these meetings is to promote this acquaintance and friendly personal intercourse among men of science; but other great and perhaps more important benefits grow spontaneously out of them. They draw public attention to science and scientific men, and make people inquire concerning both them and their pursuits. They exalt science in general estimation, and with it those who devote themselves to its advancement; and, above all, they spur on the governments of the different states to examine into and ameliorate the condition of their scientific institutions; and to seek for men of true science to fill the chairs of public instruction. Such and similar benefits have already resulted from the meetings in Germany. Might not similar results in our own country be looked for from a similar institution?

PORTOBELLO, 23d February 1831.

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