THE CHARLESTON DAILY NEWS. WEDNESDAY MORNING, SEPTEMBER 15. 1869.

THE DAILY NEWS.

Largest Circulation.—*THE DAILY NEWS BEING THE NEWSPAPER OFFICIALLY RECOGNIZED AS HAVING THE LARGEST CIRCULATION IN THE CITY OF CHARLESTON, PUBLISHES THE LIST OF LETTERS REMAINING IN THE POSTOFFICE AT THE END OF EACH WEEK, ACCORDING TO THE PROVISIONS OF THE NEW POSTOFFICE LAW.*

CHEAP ADVERTISING.

THE CHARLESTON NEWS, the circulation of which is about twice as large as that of any other paper published in South Carolina, is the best advertising medium for all business men. For persons who want situations or servants; who want houses or apartments, or have them to rent; who want or who offer board and lodging; who have lost or found articles of value, THE NEWS has no equal; and in order that all classes may have their wants supplied, we have adopted the following scale of CHEAP ADVERTISEMENTS, *payment* for which must invariably be made *when the order is given:*

Advertisements of situations wanted by or offered to clerks, governesses, tutors, workmen, mechanics, house-servants, porters, shop-boys, cooks and washers; board and lodging wanted or offered; apartments wanted or to let; articles lost or found; houses, shops, offices and warehouses wanted or to let, and miscellaneous wants of all kinds.

For each insertion of advertisements of the classes specified:

Not exceeding THREE LINES or 20 words....25 cents.
" FOUR LINES or 30 words.....40 "
" FIVE LINES or 40 words......50 "

All advertisements to be inserted at these rates must be prepaid and delivered at THE NEWS office by 9 P. M.

Range of Thermometer at the News Office.

	8 A. M.	12 M.	3 P. M.	6 P. M.
Tuesday.....	75	78	76	76

LOCAL MATTERS.

Meetings This Day.

Tyre Lodge, at 8 P. M.
C. L., at half-past 8 P. M.
Relief Loan Association, at 8 P. M.
Rutledge Rifle Club, at 8 P. M.

Auction Sales This Day.

See Fourth Page for auction sales.

WILLIAM MCKAY will sell at 10 o'clock, at his store, furniture, crockery, &c.

N. A. HUNT will sell at 10 o'clock, at his store, boots, shoes, &c.

R. M. MARSHALL & BROTHER will sell at half-past 10 o'clock, at their office, carpets, pianos, &c.

LUNCH at Torck's to-day—okra soup, boiled fish, and boiled ham, with dainty trimmings.

MERCANTILE PRINTING.—All kinds of mercantile printing, such as circulars, letter heads, cards, bill heads, statements, &c., for counting-rooms and offices, promptly executed in the neatest style and at the lowest rates for cash, at THE NEWS JOB OFFICE, No. 149 East Bay.

OUR NEW YORK STEAMSHIPS.—The steamship Champion, Captain R. W. Lockwood, of the Adger line of New York steamships, arrived yesterday with every part of the ship full of freight and a large passenger list. The Champion is an unusually large carrier, measuring some 1400 tons, and was compelled, on this trip, to leave freight for the steamer to follow, so large were the offerings.

PERSONAL.—Mr. William Connor, of New York, the well known type founder, is now making a flying trip through the South, and was in Columbia yesterday.

Mr. Lengnick, of the enterprising Hayne-street firm of Lengnick & Sell, has lately returned from a visit to Europe, the result of which customers will find in the endless variety and choice character of the firm's stock of fancy goods.

THE CONSTABLES OF THE MODEL NEGRO MAGISTRATE LOGAN, Joseph Ball, Agrippa Gadsden, Adam Frazier and March Lucas, were arraigned before Magistrate Kanapaux yesterday to answer the charge of false imprisonment. They failed to give security for their appearance for trial before the State Court, and were committed to jail. They were then carried before Magistrates Schroder and Mackey upon a writ of *habeas corpus*, and were discharged upon their own recognizances.

GONE INTO THE HUSBAND BUSINESS.—On Monday afternoon a colored man named Wm. Barnett applied to Magistrate Mishaw, colored, for a warrant to arrest Eliza Barnett, alias Brown. He stated that about a year ago he and Eliza were married, but a short time ago she left him, and, on last Thursday night, married Wm. Brown. Warrants were issued, and both Eliza and Brown arrested. Eliza stated that Brown was not to blame at all, as she had induced him to marry her. Eliza was sent to jail in default of security to appear and answer the charge of bigamy, and Brown was required to give security to keep the peace towards Barnett.

"THE CITY BY THE SEA."—This is the title of a bi-weekly advertising sheet, the first number of which is announced to be forthcoming on Saturday next. Mr. F. W. Miller, who is to be the publisher and general manager, tells us in the prospectus that it "is to be no haphazard enterprise, no evanescent intruder into the domain of journalism; but a substantial representative of our commercial character." It is promised that the varied topics of finance and commercial economy shall be treated "with an acceptable breadth of philosophy and public spirit," and that "The City by the Sea" shall "be distributed gratis in every part of the city, State and South." If energy and activity on the part of the publisher can command success, the new venture is likely to be a prosperous one.

SALE OF STOCKS AND BONDS.—Yesterday Messrs. Wardlaw & Carew sold the following stocks and bonds:

334 shares Savannah and Charleston Railroad stock, at $28½@$24¾.
$6580 City six per cent. stock, (old,) at $59¾.
50 shares Northeastern Railroad stock, at $9.
212 Union Bank stock, at $8.
105 Bank of Charleston stock, at $12½.
41 shares Planters' and Mechanics' Bank stock, at $2 75.
— shares People's Bank stock, at $3 50.
50 shares City Railway Company stock, at $53¾.
2 bonds Northeastern Railroad, ($500 each,) first mortgage, at $79.
109 shares South Carolina Railroad stock, at $42.
$9000 Six per cent. bonds of Charleston and Savannah Railroad Company, guaranteed by State, at $68.
$2000 Seven per cent. bonds of Savannah and Charleston Railroad Company, ($500 each,) guaranteed by State, at $8[illegible]

THE VON HUMBOLDT FESTIVAL.

INTERESTING EXERCISES.

AN IMMENSE AUDIENCE.

Addresses by Rev. Dr. Bachman, General John A. Wagener. Professor McCrady and Rev. Mr. Mueller.

Seldom has there been congregated in Charleston such an audience as assembled last night in Hibernian Hall to celebrate the centennial birthday of Alexander von Humboldt. Except at the Schutzenfests, indeed, we doubt if a similar number of our German and American citizens have ever met together in any single locality in this city.

The occasion, however, and the manner in which it was distinguished, was worthy of such an exhibition of public interest. The committee in charge of the exercises had secured the services of able men to speak of the career and achievements of the illustrious dead, and music was invoked to add its charm to the scene. The hall was handsomely prepared, the stage especially being most tastefully arranged. The new scenery intended for theatrical display was exhibited for the first time, and, with the additional decoration of flags belonging to various German societies, and a liberal sprinkling of evergreen, the harmony of color and arrangement was calculated to satisfy the severest taste.

In order to secure an appreciative audience, and at the same time prevent the oppressive jam of humanity which otherwise would have been present, the committee of arrangements wisely issued tickets, which were distributed without charge among our citizens to the number, it is said, of twelve or thirteen hundred. Few of these could have been unused, for not a seat was unoccupied, and every foot of space whereon humanity could stand upright was filled by well-dressed and interested spectators After eight o'clock it was physically impossible to enter the hall.

On the stage were a number of the representative German citizens of Charleston and others. Among these, besides the speakers of the occasion, were observable Captain Jacob Small, president of the German Friendly Society and Freundschaftsbund; H. B. Olney, Esq., senior warden of the same; Captain Alexander Melchers, vice-president of the Freundschaftsbund; Father Birmingham, and the members of the committee and of the Sængerbund.

Promptly at eight o'clock the exercises were commenced by the choral hymn—"Open, ye Gates; Let the King of Glory in"—from the members of the Teutonia Sængerbund, under the leadership of Professor A. J. Hoffman, the accompaniment being rendered by a fine orchestra, under the direction of Professor Metz.

The venerable Rev. Dr. Bachman being now introduced to the audience by Captain Small, advanced to the front of the platform and stated that, agreeably to the invitation of the committee, he had prepared an address to be delivered on the occasion, but that in consequence of his great age and bodily infirmities, he felt unequal to the task of its presentation, and accordingly had requested his friend and associate, the Rev. Dr. Hicks, to address the assemblage in his stead.

Thereupon the Rev. Mr. Hicks read the following interesting personal reminiscences of the great "hero of science," as they were enjoyed and described by our aged and distinguished citizen and naturalist, Dr. Bachman:

Address of Rev. Dr. J. Bachman.

Having been honored with a request from these German societies to join in the celebration of an event which recalls to the mind, not only of the German, but of the man of science in every land, the name, character and eminent usefulness of one of the greatest men in the natural sciences which the world has ever produced, I feel at a loss where I am to begin, or which of the numerous subjects presented on the eventful life of Humboldt it would be most interesting to dwell upon.

I have thought that you might be most interested in a few of the reminiscences of my early intercourse with that great man, who, even at my first acquaintance with him, appeared among the naturalists and philosophers as a giant among a race of pigmies.

We delight to trace the history of a great mind who climbed far beyond the footprints which his predecessors had left, and from this high eminence listened to the harmony of the universe and repeated its music to a listening world. He whose life and history are called to our remembrance to-day, has left a name so world-renowned that until now none have equalled it. That name echoes from the peak of Teneriffe, the summits of Chimborazo, and the gigantic ranges of the Himalayas, where science, from her mountain throne, contemplates the vast monuments on which time has recorded the history of the world, or unfolding the bosom of the earth, reveals the record of the successive phases of its development; wherever the tides of ocean or of air, the rush of mighty rivers and the stillness of unbounded plains proclaim the laws which make this globe a habitable world—wherever forests wave, decked with exuberant foliage, laden with many hued and fragrant flowers and fruits of luscious taste, and teeming with throngs of beasts, birds and insects—throughout Nature's richest kingdoms, the name of Humboldt stands confessed the greatest of Nature's historians, the wisest and most eloquent expounder of her laws.

It was in the latter part of the summer of 1804 that I was permitted for the first time, to look upon the countenance, to press the hand and listen to the interesting words of this great philosopher. He had arrived in Philadelphia with his associate, Bonpland, after having explored almost every portion of Mexico, and measured the heights of the Cordilleras and of Chimborazo. He had visited portions of South America, which had not been reached by previous travellers; he had remained in Havana ten months, where he completed his political essay on Cuba, and after a five years' residence in America, he was now about to return to Europe. Efforts were made to evince the respect of the community for such a successful traveller and so eminent a naturalist. Attempts were made to collect together the few who had any pretensions to natural science, residing in Philadelphia. I was then a student, only sixteen years of age, but it being known that I was occasionally in the habit of accompanying Wilson in his researches in ornithology and of spending my vacations and Saturdays in Bartram's Garden, the usual resort of botanists, I was honored with an invitation to meet those who were about to welcome this eminent philosopher and naturalist to our country. I felt that I was not deserving of the high honor of the invitation, and mention the fact here, to show how scanty in those days were the materials in natural science. A dinner had been prepared for the occasion in Peal's Museum.

Among the few naturalists who attended were the two Bartrams, Wilson, the ornithologists; Lawson, his engraver; George Ord, and a few others, whose names have now escaped my recollection. To this small group were added a considerable number of men who were eminent in the various departments of literature and science. Few speeches were made, and those were short. There was no formality. Humboldt was then, as he was afterwards, in every society "the observed of all observers," ready to answer any question that was propounded to him, and evidencing throughout a spirit of gentleness and kindness and great amiability of character. I saw him every day during the next few days he remained in Philadelphia. He inserted my name in his note book, and for the last sixty years we corresponded at long intervals.

His publications, as they successively appeared, mostly in the French language, with the exception of his "Aspects of Nature," which was in German, were regularly sent to me. It would have been very gratifying to me, and interesting to your societies, if I could have exhibited his autograph in some of his letters; but, alas! my whole library and all my collections in natural history, the accumulation of the labors of a long life, were burned by Sherman's vandal army, and with the exception of a single letter, which, by accident, fell into the hands of another member of my family, I possess no memorials of one who condescended to speak to me as a friend.

Thirty-four years passed away, and I was once more permitted to renew a personal intercourse, which had been so long interrupted Arriving in Berlin, he was the first to welcome me and extend those civilities which enabled me to feel myself at home among the men of learning and science in my fatherland. Although years had passed away, time had wrought but very little change in his countenance or in his habits He was the same cheerful, pleasant companion, the same indefatigable student, giving but four hours to sleep, and laboring in his studies with uninterrupted zeal.

When about to separate, we arranged to renew our intercourse again at the Association of Naturalists, who were to meet that year at Freiburg, in the Duchy of Baden, where were to be congregated the most eminent naturalists of Europe. The members all dined at a common table, but our breakfast and tea were served up in private apartments. An opportunity was then afforded us for private intercourse and conversation with friends. We made arrangements to welcome Humboldt into the small group who breakfasted and took our tea together. A few of the eminent naturalists of Europe composed our little party. Professor Buckland, of Oxford, was there, and his lady presided at our cheerful board. Professor Owen, of England, assisted in forming the party. But we were doomed to disappointment. Humboldt was detained by order of the King in Prussia, and wrote to express his regret that he could not be with us.

I never expected to meet him again, but late in the autumn of that year, happening to be in Paris, and attending a meeting of the French Academy, one of the first persons I met was Humboldt, and for two weeks I saw him nearly every day. He was still, as usual, the student of nature; gave his hours of repast to a group of friends who united in conversation with him, and devoted the remainder of the day to the various studies in those sciences to which his life had been devoted. He always spoke of himself as an humble student of nature, who knew but little, and was struggling to acquire more knowledge.

It was pleasant and somewhat amusing to observe his manner and occupations during the day. At a stated hour in the morning he was to be found at the Garden of Plants engaged in some investigations in natural history.

I met him there with his coat off, and in an apron that nearly covered his whole body, engaged in dissecting an animal that had just died in the menagerie. So intent was he upon his labors, that he seemed to have scarcely time to turn his head to answer the various questions that were addressed to him. Thus, for some hours every one appeared to be intensely engaged in his own work. At a certain time of the day, these French philosophers always resolved on an hour of rest and recreation. When that time arrived one of the students passed through the rooms of these students of nature, calling aloud, "The hour has come, boys; come out to play!" Instantly the whole scene was changed. The philosophers shut up their books, laid aside their instruments, changed their outward dress in a few moments, and it appeared as if a group of happy children were jumping and frolicking around you.

A considerable portion of the garden was devoted to a menagerie of wild animals, and among the most amusing were the monkeys collected from all quarters of the earth. Here these philosophers amused themselves until the dinner hour, and for a time the sciences were all forgotten in the hilarity of the occasion. I noticed that Humboldt exerted himself to be as gay and happy as any in that most interesting group.

The dinner hour having arrived, men who wished to render their time in Paris agreeable usually arranged to dine together at some of the *tables d'hote*, where old associations are renewed, and where they can enjoy uninterrupted the most entertaining and delightful conversations. On these occasions I usually met Humboldt. There he was, the pleasant and instructive companion, and we all conceived it to be not only a great privilege, but a high honor, thus to be associated with him.

At the meetings of the Academy of Sciences he preferred being a listener. Occasionally, for the purpose of eliciting an opinion, a question was put to him which he would answer in a few brief words, and then resume his seat. At night, to the various parties which were given in Paris, Humboldt was always invited, and it appeared that he never declined the invitations. Ladies of the highest rank were not satisfied without an introduction, and they always spoke of the occasion as one of the greatest honors that had ever been conferred upon them.

I would just here remark that Humboldt was a figure of the medium size; his forehead broad and high; his hands and feet delicately formed; his locks in the latter part of his life of silvery whiteness; his eyes were blue and full of expression.

Thirty years ago his features appeared undimmed by age, and while enjoying his conversation, in which there was wit and tenderness, you lost for a moment your reverence for the great man in your admiration for a kind and jovial companion.

He was born in Berlin in 1769, a memorable year for the annals of genius, for in it were born Sir Walter Scott, Cuvier, Chateaubriand; also the eminent English orators and statesmen, Canning, McIntosh and Brougham. He was of baronial lineage. His father was chamberlain to Frederick the Great, and the personal and intimate friend of the succeeding king. His father was not gifted with any striking qualities. Humboldt was indebted for the direction of his education to the baroness, his mother, who was no ordinary woman, and whom he loved and venerated. She had descended from that sturdy race of French Protestants, whom the revocation of the Edict of Nantes scattered abroad, to the advantage of every country where they fixed their abode. This lady appears to have transmitted to her son the cheerfulness, vivacity and quickness of apprehension which belonged to her own race, while he inherited from his father the tenacity of purpose which so much distinguishes the Teutonic character.

Humboldt was peculiarly favored in the possession of every advantage for the acquisition of knowledge. It cannot be said of him that he was ever deprived of anything that was necessary to render him a great and eminent man. From his earliest years to mature manhood, he lacked no instruction which wealth, rank and affection could lavish upon him.

He was educated at the University of Gottengen. Wherever he went, in his adventurous career, the same cordial welcome and co-operation awaited him. Kings and governors vied in promoting his progress. Lovers and cultivators of science, in every country, contributed of their own stores to enrich him, and through him the world.

How vast those resources were and how usefully they were employed may be seen in his works. He lived to a great age. He was born in 1769, and died in 1859, having reached the the unusual age of ninety years. The whole of his long life was devoted to studies and labors calculated to benefit mankind. His last work—the Cosmos—is a monument of meditation and research unequalled in all the labors of science. Even when the weight of four score and ten years lay upon his head, he toiled while others rested, and it is asserted by those who knew him most intimately that the morning's dawn often surprised him at his desk. He had a brother—Carl Wilhelm, two years his senior—who became almost as eminent as himself in many of the sciences.

In the many conversations I had with Humboldt, he often alluded to his attachment to the American nation, and spoke of himself as half an American, inasmuch as some of his earliest labors had commenced in America. He had no time to devote himself to minor points in the sciences. His mind dwelt upon the great laws of nature comprehending the whole circle of the sciences. In the knowledge of *genera* and *species*, in the particular sciences, he had many superiors. Thus in botany, Linnæus and Decandole were fuller in their knowledge in these departments. Cuvier, and even Buffon, had entered more minutely into the study of the quadrupeds, and other authors, who devoted themselves to the study of birds, fishes, insects, &c., surpassed him in minute description; but in a general knowledge, he surpassed them all. And it is not to be wondered at that a man who, by his intellectual greatness, towered above the loftiest of his contemporaries, and by his simplicity, gentleness, affability and modesty of manner, made even the humblest at home in his society, should have become the admired and honored of all men.

In the streets of Berlin every one seemed to know him and to love him. Crowds would separate to let him pass without disturbing the reflections in which he was engaged.

I remarked that the two neices of the King ran up to him in the street to impress a kiss on his cheek, calling him by the endearing name of father.

In his ninetieth year, with his faculties yet unimpaired, when all his associates of early life had been removed, and his name had been rendered immortal, he was summoned from the earth, and all that was perishable was committed to the tomb, amid the homage of great scientific bodies and the solemn reverence and silent tears of the multitude who has wondered at his wisdom, and loved him for his virtues.

It is difficult to decide whether he displayed more humility in his greatness or dignity in his simplicity. He adored the highest and graced the humblest position. Having had experience with men of all climes, ranks and characters, he was yet never known to have made an enemy.

In order to form some idea of the various sciences which Humboldt had studied, and of which he had acquired a knowledge above all other men, I refer you to a summary contained in the first volume of his Cosmos, where it will be seen that there was no study, however deep and abstruse, which his mind did not grasp, and no aspect of nature with which his mind had not become familiarized.

The lessons taught us in these simple references to the life of a great man ought not to be overlooked. He who desires to be great must study to acquire knowledge. Humboldt considered every moment of time lost that was not devoted to the acquisition of knowledge. He who would be eminent must preserve his mind pure and elevated, and free from all irregularities and indulgence in licentiousness. Humboldt's moral character was pure and without a stain. He who desires to hand down his name to posterity among the great and the good, must follow the example of Humboldt, and labor to be an ornament to society and a blessing to mankind.

After an overture by the orchestra, General John A. Wagener rose to deliver the oration.

Oration of General John A. Wagener.

The remarks of this gentleman were delivered in German. They had been prepared with care, abounded with passages of striking truth and beauty, and were appreciated, as their eloquence deserved, by those who understood the language in which they were spoken.

He commenced by observing how beautiful was the spectacle of men releasing themselves from the cares of business for the purpose of doing honor to one whose greatness consisted in his usefulness to mankind. The present was a festival coextensive with the limits of civilization, and it could not but be a source of pride to every German that from one end of the earth to the other—throughout Europe, part of Asia, Africa, and the two Americas—it would be celebrated in his own mother tongue. Nay more, the object of all this praise which the children of other nations as well as the German people delight to bestow—he who had gathered and worn these laurels—was himself a German.

The speaker then proceeded to briefly sketch the life of Humboldt, concluding the same with a beautiful eulogium upon the character and services of this "honorary citizen of the world." Science had become his pride in early life, and he had been true to her until age decked his brow with a silver coronet, night rested upon his vision, and he disappeared like some glorious star drawn from earth to heaven. Even if time permitted, few would be bold enough on such an occasion to express an opinion of Humboldt and his works at variance with the opinion of the whole of the learned of the earth—an opinion which is verified by the events of this day, because the world combines to do him honor. The great object of Humboldt's life, as proposed by himself, was not to study merely one branch of science, but to make himself familiar with, and, if practicable, the master of all; and when his labors are reviewed, it seemed as if Providence had specially selected him as an instrument in His hands to begin a new epoch in the intellectual development of mankind. His early studies, personal wealth, family associations; his habits and tastes; his powerful constitution and an unusually long life in which to complete the varied labors so auspiciously begun, were all circumstances tending to achieve success, and enable him to enjoy the fruition of his work. The same spirit which precedes and prepares periods of development, calls into action those who are to become its agents, and marks the epoch by the announcement of new thought, or the discovery of new facts, thus either altering or amending science and life, or increasing the pre-existent harmony. Humboldt did not commence his travels without drawing like a good general upon his extensive armory of science. Thus it was that he was enabled to investigate Nature in all her phases with the most effectual results. He described the earth and her position in the astronomical system, her continents and oceans, her mountains and valleys, her hills and dales; the rocks above and the strata below; birds, animals, insects, trees, and all manner of vegetation; her past and present history; the phenomena of nature, and finally humanity itself, and its relation to the arts and sciences. While he ascended in person to the highest altitudes in three portions of the globe, and penetrated to the lowest depths attainable by man, he likewise searched for the riches contributed to mankind in the books and laboratories of the most learned in his own intellectual sphere. Schiller and Gœthe, by their massive genius in developing the strength and beauty of German poetry, imparted fresh vigor to the literature of the world; and so it was reserved for Humboldt to become the founder of a new school of natural science as distinguished from the previous speculative philosophy, and based upon exact and mathematical principles.

Humboldt was the first who undertook to describe whole countries according to their geognostical profiles, and to fix the uniform character of volcanoes. He was the first to put forth the true view of the relation of the various elements of the earth to itself, and hence was instrumental in doing away with the planless gathering of single facts. Taking into consideration the interior structure of the earth, he founded a new school of climatic observation and philosophy. He was the first to mention the peculiar uniformity in the disposition and distribution of precious metals, and made valuable suggestions concerning deposits of diamonds. Procuring seed in the various countries which he visited, he caused their propagation in Europe, and the establishment of public botanical gardens for the dissemination of this branch of human knowledge.

We see him on the point of Chimborazo, twenty thousand feet, or nearly four miles, from the level of the earth—a height which, before Humboldt, no man had ever reached. We find him in the Cave of Ataruipe—the grave of a tribe of people—lingering among the six hundred skeletons there found. We see him amid the throes of an earthquake, calmly investigating the nature of the phenomena, while all around him men are trembling in terror, or fleeing for safety. We find him again descending the craters of volcanoes in the Pacific Ocean, or experimenting with the power of the electric eel—everywhere, indeed, pursuing with enthusiasm, and with an eye single to the advancement of science, those great objects to attain which only the bravest, purest and best of mankind are willing to sacrifice life, if necessary, for the benefit of their fellow men. Franklin robbed the heavens of their lightning. Humboldt followed Nature in her most secret workshop. His aspiring eye reached regions far beyond the lightning, and if there ever was a mortal who had a clear conception of the mysteries and all-pervading power of God, it was him to whose name we do honor to-day.

The question then arises, was he not selected by the Almighty to become the Corypheus of a new epoch in science, that humanity might take a giant step forward in the true knowledge of life, and, at the same time, discover the art of true happiness and material prosperity?

Humboldt discoursed of agriculture, the encouragement of manufactures, the extension of trade and commerce, the economical and political relations of government. He scanned the heavens, and tells us of planets, comets, clouds of light, asteroids and meteors that finish their existence on our earth. Who, without admiration, can contemplate that knowledge which has demonstrated that light travels 41,882 feet in a second, at which rate it would require 2000 years to reach us from the milky way; that the number of stars amount to twenty million; that there are in the milky way alone eighteen thousand; that, according to Kepler, there are more comets in space than there are fish in the depths of the ocean. Humboldt, in spirit, travelled all these worlds, and whatever he gathered he brought with liberality back to his people. His genius was indeed universal.

That such a man should have been regarded with envy and jealously by many of his contemporaries is not a subject of wonder. Few, indeed, is the number of those who, laboring in behalf of humanity, have escaped the shafts of malice. But the scientific glory of Alexander von Humboldt was too well founded to suffer detraction from any cause, and only his tender nature was wounded by the petty assaults of these enemies. It has been thought hard of Humboldt that he allowed himself to be drawn into controversy with his opponents. But it must be remembered that the most noble, the most elevated, the wisest and best of mankind are those who have to contend chiefly with the literary hyenas of the world, whose vocation is never to build, but always to tear down. Gallileo, who was first to promulgate the theory of the earth's revolution, was condemned to perform the penance of the church; Socrates drank of the poisoned chalice; and our Saviour was crucified. So, too, our Humboldt endured persecution. Although in every work he proclaims the glory of the Creator, and the loveliness of His creatures, he was accused of Atheism. On one occasion he assured a friend that were it not for the friendship of the King of Prussia he would have been banished from the country because of the hate of the prelates and ultras.

A man like Humboldt, however, should not be adjudged from the single features of his character, but from the results of his whole life. His fear was not the world of the present, but the world of the future; of the great thinkers who are to follow and test his labors by the light of additional experience and investigation. But let us believe that the wisest and best men of the coming century will bear witness, as we do to-day, to the universality of his genius, to the magnitude of his labors, to the benefit he has conferred upon mankind, and elevate him to a position in the annals of fame higher and prouder than any that will be occupied by his contemporaries.

In the light of the present alone, we as Germans can well feel proud of a fellow German whose name has been sounded to-day in millions of human ears. Yes! the beams of his sun are illuminating our foreheads, and as we view ourselves in the great mirror of the age there is reflected upon us something of that halo which glorifies the name of Humboldt, and through him the German people.

I greet you, then, my fellow-countrymen, with that joy which befits this occasion, and bid you God speed in the use of that intelligence, energy and patient industry which you have exhibited in all the pursuits of life, and which should ever illustrate the character of the countrymen of Von Humboldt.

I greet you, dear German women—you whose domestic virtues adorn the circle of home—you whose faith, purity and excellence cement the bonds of society—you whose devotion to the fatherland is only one of the manifestations of that love which you bear to the good, the true and the beautiful everywhere.

May God, in His mercy, watch over and protect your career, and bless and comfort you in all the relations of life.

It is but justice to General Wagener to add that the above is a meagre translation and synopsis, and conveys but an imperfect idea of the address as spoken in the original German.

Part II was opened with a handsomely rendered chorus—"To thee, I Sing, beloved German Fatherland," after which Professor McCrady delivered the following address:

Address of Professor McCrady.

In the distribution of the duties of this memorial evening, it has fallen to my lot to trace, however imperfectly, the position occupied by the intellect and labors of Alexander von Humboldt in the history of physical science. Conscious as I am that to execute such a task with a skill proportionate to the magnitude of the subject, is something quite beyond the share of critical acumen and research to which I may lay claim, I shall nevertheless endeavor faithfully to delineate the impression made upon me by the scientific career of the great author of Cosmos, in the conviction that where there is opportunity to render homage to the memory of those who mark epochs in the advancement of human knowledge, it is the duty of every one to contribute what he may towards a rightful use of such opportunity.

I feel a particular satisfaction in being thus limited to the consideration of Humboldt's scientific achievements, as I may thereby avoid the barren obverse of his life; wherein, surrounded by the foibles of humanity and overshadowed by a defiant pride of intellect, lies the defaced symbol of that religion to whose influence modern science owes nearly all its peculiar characteristics, and without which Humboldt's achievements themselves would have been impossible.

It is one of the teachings of that religion to give honor to whom honor is due, and so from every part of his fatherland and from those distant regions into which the German race has pushed its vigorous offshoots, as well as from the lovers of scientific advancement throughout Christendom, there arises at this voluntary festival a hearty recognition of one of the most extraordinary intellectual reputations it has ever been given to man to acquire—a reputation so great that the boldest who may differ from him would hardly venture to attack the scientific opinions and judgments of Alexander von Humboldt with levity, or with other than the reverence which we instinctively feel in the presence of the highest order of Genius.

When we ask ourselves, however, what special achievement in science it is that has left, in the case of Humboldt, so deep an impression upon the mind of the race, a satisfactory answer to our question is by no means so obvious as we might naturally have expected.

It is easy to fix upon the source of Newton's fame, in the fact that he was the discoverer of a law which science has since accepted as universal, and was, moreover, the inventor of a wonderful machinery of analysis by which the investigation of that law became possible. It is likewise evident that the world-wide repute which attaches to the name of Linnæus is derived from his being the first to perceive the scientific importance of the co-ordination of groups in Nature, and the first to devise the means of reflecting the system of Nature in scientific thought and scientific language.

Nor is it difficult to trace the celebrity of the great Cuvier to his discovery of the correlation of animal structures, by which it became possible to obtain a knowledge, more or less precise, of extinct forms of life, by the careful study of a few of their less perishable parts preserved in the necropolis of the geological ages.

In each of these instances, and in many others which could be added to the comparison did time permit, there is some special discovery capable of being designated in a few definite words which has opened a long avenue of research to students, and yielded an endless harvest to science, more than sufficing to account to us, even at a glance, for the veneration in which mankind have embalmed the name of its author.

But when we seek to lay the finger of certainty upon that one thing in Humboldt's scientific career, to which as to a fountain head may be traced the mighty stream of his fame, it seems like the vain effort to determine the source of the Amazon, or the spring from which the Mississippi first sees the light. It is true that he was a great traveller, and has left his footprints in very remote quarters of the globe; in the Steppes of Asia, and the equatorial forests of America, on the Peak of Teneriffe and in the mines of Mexico. It is true that everywhere he made even the accidents of travel the opportunities of science, and has left behind him a store of original observations of imperishable value. It is true that he was the fortunate witness of many grand exhibitions of the forces at work in Nature, and that he has left such records of them as no other man has surpassed, if any have ever equalled. It is true that he made original researches in physical geography, meteorology, terrestrial magnetism, chemistry, mineralogy, botany and zoology, and in the geographical distribution of organic life. It is true that history, archæology and ethnology did not escape his comprehensive grasp. In a word, it is true that he could take rank among the proficients of each science in turn, and that he made a number of valuable contributions to several sciences, besides definitely settling many points of uncertainty.

All this would have entitled him to such admiration as we give to men of well balanced and varied learning, vivified by a wholesome personal acquaintance with the sources from which such knowledge has been derived; and such alone, we may freely acknowledge, would have been the groundwork of a much more than ordinary reputation. Yet this reputation would have had little other foundation than the exhibition of vast personal power; and when we should come to inquire what impulse had been given thereby to the progress of science, no honest mind would, for a moment, compare such achievements to those of Copernicus, Kepler, Newton, or to those of Linnæus, Jussien, and Cuvier. It would be even an injustice to the memory of Humboldt were we to institute a parallel between his contributions to physical geography, which constitute nearly the whole of his contributions to science, and the discoveries of the great men just mentioned, or with some of the more recent revelations of science, as, for instance, that which is known variously as the Correlation, the Conservation or the Persistence of forces, a discovery which has shed lustre upon the names of Mayer, in Germany, and Joule, in England That physical discoveries like this were awaiting development in Humboldt's lifetime, and that some of them, like that just mentioned, and the more recent Spectrum Analysis of Kirchhoff, while they were of the utmost importance to Humboldt's scientific aims, lay not very far from his reach, as he grandly traversed all the domains of physical research, are circumstances that, taken in connection with the profound impression left by this great intellect upon his age, become of singular significance. For these circumstances indicate that the position of Humboldt in the historical progress of science is something quite peculiar, and that a remarkable idiosyncracy lies within the halo of his reputation.

What this idiosyncracy is we, of course, cannot determine unless we first separate from the scientific reputation of this illustrious student of nature those other sources of fame with which it has no necessary connection. We must bear in mind that we are analyzing the light of a manifold source, and that in this one man must be recognized the profound scholar, the sensitive and refined art critic, the sagacious historian, the experienced and adroit man of the world, the liberal politician, united with the hereditary aristocrat, as well as the colaborator in the development of that doctrine of Humanity which is now so popular among men. Each of these tributary streams has contributed its flood to the great river of his fame, and some of them have done more for its universality than could have been effected by any merely scientific reputation.

Yet, even when subjected to so destructive an analysis, there still remains the pure gold of a scientific distinction to which no other man in Germany or the world can lay an equal claim.

Apart, then, from the popularity which he knew so well how to attract and how to retain, and apart from those accessory powers which constitute the flying buttresses of the majestic structure, he has left behind him what constitutes the real value of Humboldt's life and labors to science.

I fear you will feel some impatience when, after all this preliminary analysis, I answer that the real basis of Humboldt's scientific fame is a work which appeared after its author had already long been famous. Does not every one know, you will say, that the Cosmos is a great work—*the* great work of our age, in short, as Bunsen said on its first appearance?

But what I hope will appear, as we proceed is, that the Cosmos must not be regarded merely as the greatest work of its author, but *as his whole work*, the end and aim of his life, and the embodiment of all he could be to science. In short, Humboldt was famous in his earlier years, because he was then preparing his great powers for the task of writing the "Cosmos" in "the late evening of his life;" because he was then writing the Cosmos, and now that the marvellous energy of that cosmical intellect has ceased to exhibit its operations to us, Humboldt is famous because he has written the Cosmos.

There are, of course, many different points of view from which that great work may be regarded. As a literary composition, I believe it takes rank among the classics of his country. As an artistic effort, it is really wonderful, for the success with which, while sacrificing no tittle of its scientific value, the author has contrived to throw off the conventional and usually necessary trammels of technical terminology and professional usage, and to infuse the life and motion of nature into details which, outside the circle of his intellectual influence, usually appear as the dry bones of a lifeless anatomy. Moreover, as an exhibition of extensive and varied learning, there are few if any works, in any language that can be compared with it.

But that which constitutes the value of the Cosmos to the progress of science, and consequently determines Humboldt's position among the great men of the past, of the present, and of the future, is the conception of the whole work, and the success with which that conception has been communicated to the world.

What this conception is, we may find elaborately set forth in the preface and introduction to the Cosmos; but it will be found more convenient for our present purpose to condense it, though at some risk, into the compass of a few words.

Humboldt conceived the possibility and executed the task of presenting to the age in which he lived a view of the Cosmos, of the entire physical creation *as one whole, moved and animated by internal forces*, as a preparatory study to the solution of the problem of the rational unity of creation. The realization of this design appears to have been at once the ultimate object and guiding motive of his intellectual life. Even from his earlier years, a peculiar longing appears to have possessed him to attain to a conception of the physical universe as a whole, and to express this conception in one great series of connected pictures, every line and shade of which should have a real and definite scientific value determined by scientific methods.

To show how all his scientific labors gravitated towards the realization of this design, we have but to quote his own words: "Although," he declares, "the outward relations of life, and an irresistible impulse towards knowledge of various kinds have led me to occupy myself for many years, and apparently exclusively, with separate branches of science, as for instance with descriptive botany, geognosy, chemistry, astronomical determinations of position and terrestrial magnetism, in order that I might the better prepare myself for the extensive travels in which I was desirous of engaging, the actual object of my studies has, nevertheless, been of a higher character. The principal impulse by which I was directed, was the earnest endeavor to comprehend the phenomena of physical objects in their general connection, and to represent nature as one great whole, moved and animated by internal forces—to show in what manner the common conditions, that is to say, the great laws by which individual groups of these phenomena are governed, have been recognized, and what course has been pursued in ascending from these laws to the discovery of their causal connection."

And he explains his devotion to the specialties of so many branches of science by telling us that his "intercourse with highly gifted men early led him to discover that without an earnest striving to attain to a knowledge of special branches of study, all attempts to give a grand and general view of the universe would be nothing more than a vain illusion."

The great magnitude of his undertaking, and the impossibility of its perfect accomplishment, he recognizes in the following words: "In a work of so comprehensive a character, the object of which is to give a scientific and at the same time an animated description of nature, a first attempt must rather lay claim to the merit of inciting, than to that of satisfying inquiry."

But we may add that this lesser merit is that which constitutes its principal practical value to science, in that it has given a new and a cosmical character to subsequent researches.

Such being the scientific mission of Alexander von Humboldt, let us endeavor to form a good idea of its absolute and relative value to the progress of human knowledge. We can only do so by a consideration of the history of inductive science, and the laws by which, independently of the volition of man, its gradual evolution has been effected. And it was one of the many proofs of the grandeur of Humboldt's work that its true proportions can be appreciated only when we view it at a distance as a prominent point in the vast field of human intellectual labor, and one which has some important relation to almost every part of that field.

So accustomed are we at present to the rapid accumulation of facts and swift succession of discoveries, that we have to be reminded of the time when the amount of man's positive knowledge of natural phenomena was very small in compass, and when no wide circle of reading nor very prolonged application to research was necessary to enable students of fair abilities to master the whole domain of physical knowledge. It was then no very difficult thing to acquire all that was really known in the fields of astronomy, geognosy, natural history and chemistry. So it was, in the epoch of Roger Bacon, of Leonardo da Vinci, and so it continued in a less eminent degree even to the time of Newton and Linnæus.

Inductive science was then in embryo, and, like the beginnings of many other great developments, occupied but a small space in the intellectual world. Yet was this small space of very manifold comprehensiveness, for in it lay the germs of all the special sciences since unfolded. Men indeed had not followed the inductive method a great way before discovering that nature is infinite in the number and diversity of her special phenomena as well as in her cosmical expansion. The determination of one fact in any one direction of study, instead of satisfying inquiry, was found to create a want of further information by betraying the existence of a greater or less number of unsuspected and often very puzzling appearances lying beyond it. To ascertain the cause of these appearances, further investigations became necessary. From the very complexity itself of nature, it resulted that the attainment of accurate knowledge, in one particular, involved the necessity of attaining equally accurate knowledge in several other related particulars, and consequently the observer was led to expend a much greater amount of time and labor on every several object of research than could at first have been anticipated. The growth of positive or empirical knowledge, once begun, was found to be of such a nature that the more it grew, the more must it continue to grow, and that, in short, so exhaustless was the variety of phenomena in the unity of nature, no limit could be assigned to the continuous accumulation of physical knowledge but those barriers imposed by time and space, and the imperfection of the senses, and of the means of locomotion possessed by man. Even these barriers, however, to some extent gave way when America was made known to Europe; when the telescope and microscope were invented, and when the methods and objects of chemical analysis came to be better understood. By such means new worlds of discovery of an infinite richness, far exceeding the conceptions of the profoundest thinkers, were disclosed to observation. Science became, we might almost say, suddenly emancipated from the bondage of unlimited speculation, and found herself free in the midst of the untold intellectual wealth of the physical universe. She soon realized, however, that the necessary condition of enjoyment is labor. The masses of material derived from all sources increased so rapidly from day to day, that enthusiasm gradually settled down to the humbler sphere of systematic work, and even then the worker found the possibility of mastering the whole domain of knowledge growing daily less and less.

Recourse was next had to classification, at first with but little higher aim than that of so arranging the growing material as to economize labor; but even the aid thus derived, though vast, did not keep pace with the growth of material. In short, classification itself became a laborious intellectual employment, when it was perceived to have its root in the very nature of the things classified, and must become a new and fruitful source of error, unless brought into conformity with that nature. The problem thus introduced involved the study of laws so recondite as to require the most extensive and minute comparisons of phenomena and the most profound meditation upon them, so that the mastery of such laws in one department only, demanded a large part and sometimes the whole of the life-time of a student of even eminent ability.

Meanwhile, though the intellectual energy of men was gradually discovering, by practical experience, the way of employing itself to the best advantage, yet the actual amount of that energy, or what I may call its specific value, remained the same. The material for study constantly growing in bulk and complexity, the capacity for study remained almost unchanged, except in the improvement of its methods; and it was finally found impracticable for the average ability of the distinguished intellects of our race to conquer the whole domain of physical knowledge. Nor will we wonder at this, when we call to mind the infinite diversity in the unity of nature, and that the service she exacts of her followers is intellectual labor, of which Humboldt is one of the most remarkable representatives; a kind of labor so intense that it has been scientifically estimated that two hours of such exertion exhausts the vital energy of man as much as a whole day of manual labor.

These difficulties in the pursuit of a positive knowledge of nature gradually, and independently of the volition of man, wrought out their own result in the well-known form of a "division of labor," by which the idea of a single individual's attaining to the mastery of the whole field was finally abandoned, and each worker selected and devoted himself to a single branch of research.

The concentration of individual energy upon specialties soon produced in science effects similar to those it has given birth to in commerce and to industrial arts, namely, increased production with less expenditure of time. But it is easy to understand that the more the study of the Cosmos became thereby divided into separate channels, and the more the details of the separate branches were multiplied, the less was it possible to retain the links of connection which, in nature, bind all these together into one great whole, animated by what we may call a single life. The difficulty of doing so was, moreover, increased by the fact that such cosmical principles of unity as were partially revealed from time to time to observers were seen to involve wholly new conceptions, such as the human mind could not have foreseen. A little reflection will disclose to us the reason of this new difficulty in the great difference there is between the *perception* of a truth and the mature *conception* of it.

A notional perception of the unity of creation men had had from the earliest epochs, and though practically obscured to a greater or less degree in past ages, by the prevalence of polytheism, we may say that this perception has always existed, either in a latent form or with that degree of distinct vitality which it manifests in the pages of our Bibles; a vitality to which our present knowledge can add nothing.

Now, our modern science began its career with this perception and has always retained it, and modern science has never yet attained to a rational *conception* of the unity of nature. In making such distinctions as these, comparisons often help us. Let us attempt such an one here.

It has for example always been perceived by mankind that the light and heat of the sun are essential to the well-being of animals and plants; and so greatly at times has that perception influenced human thought, that religious systems have been formed upon or modified by it. Yet so far as is known, it was not until within a few years past that science came to understand that light and heat once considered as fluids, are really forces, which, in the luminous splendor of our central orb, are combined with other forces, such as actinism and magnetism, and that the operation of these forces from the sun produces upon earth that endless internal movement of matter which is the essential condition of the exercise of vital activity. Thus, though men have always *perceived* that sunlight is essential to organic life, they have never, until quite recently, approached to a clear conception of the mutual relation between these two things.

In a manner precisely similar, science has always perceived the unity of the Cosmos, but has never yet arrived at a rational conception of it. Always, however, aspiring to such a conception, many and varied have been the speculative attempts in philosophical systems to discover some principle of unification, which, derived from pure theory, might supply the means of reaching that conception without the protracted labors of the inductive method. Such were nearly all the physical doctrines of the Greeks and of the Middle Ages. They, with others of more modern birth, lie scattered along the road-side of history like the ruins by which we sometimes trace the migration of races. Notwithstanding the germs of truth, which many of them contain, they have each in turn been found insufficient, and have demonstrated the great truth that man cannot preconceive the mysteries of creation. Experiment and observation alone, by well directed and unceasing labor, can gradually bring us to a nearer view of these mysteries. The rational conception of the unity of the Cosmos not only has not yet been attained, but, perhaps, it never can be fully attained, because it may, and probably does, involve one of those apparent contradictions which constitute the limits of human thought. "We are still," says Humboldt, "very far from the time when it will be possible for us to reduce by the operation of thought all that we perceive by the senses, to the unity of a rational principle. It may even be doubted," he continues, "if such a victory could ever be achieved in the field of Natural Phylosophy. "Yet," he concludes, "even a partial solution of the problem—the tendency towards the comprehension of the phenomena of the universe—will not the less remain the eternal and sublime aim of every investigation of nature."

Such, then, being the problem towards the solution of which all real progress in physical science must tend, and such as we have seen being the natural laws and conditions which make that progress what it is, we are, I hope, in a position to understand the relation of Humboldt to the advancement of human knowledge, and the magnitude of the task which he seems to have been specially designed to accomplish.

The infinite diversity of the special phenomena of nature which had compelled men tacitly to adopt a system of division of labor, had unavoidably led at the same time to a virtual neglect of the problem of the unity of nature. The study of special adaptations to special ends, seemed to engage the whole attention of scientific men, and though out of such researches often grew the most splendid generalizations of the last importance to science, yet these were for the most part limited by their nature to the special departments in which they had originated. The task of combining all the results of all of the many fields of systematic research into one whole, preserving at the same time their true relations to each other, seems to have been quietly passed by as an impracticable undertaking.

To any other man than Humboldt it probably would have been so. He who should attempt this work must first make himself practically and critically familiar with every branch of physical science. No encyclopedist, no compiler, no mere bookworm could be the author of the Cosmos. He who would put the problem of the unity of creation into a distinct and tangible form, by bringing to one focus all the manifold lights derived from the researches of innumerable observers in the most varied fields of research, must be by nature a critic and a judge of other men's labors, and must, moreover, qualify himself by culture for the exercise of his functions. We all know the great distance between these two things. Every one recognizes that to be a judge of what other men have done is a very different thing from being the mere narrator of their achievements. In a great musical performance any one, however unskilful, may enjoy the full harmony and the exquisite melody, and may even give a pleasant account of their effect upon himself; but it is only the educated musician, experimentally acquainted with the difficulties both of composition and performance, who is really in a position to judge of the faults and excellencies of the exhibition. And in science, critical ability is recognized as the highest form of ability, and that to which it is most hazardous to lay an unsubstantial claim.

Humboldt saw that to sift out from the vast mass of scientific writings all that was reliable for his grand picture of the Cosmos, he must constitute himself a critic and a judge in every branch of critical research, and he early learned, as he tells us, that this was simply impossible, unless he became experimentally acquainted with the inner working life of each science, and could weigh all its difficulties and correctly estimate the sources of error peculiar to its characteristic methods. In short that, to write the Cosmos, he must become practically a proficient in every physical science—that he must do that which all other devotees of science had by tacit consent to the division of labor acknowledged the impossibility of doing. Nothing but the consciousness of vast powers, profound enthusiasm, indomitable will and herculean capacity for labor could have enabled him to venture upon the task, and we cannot be surprised that from time to time he abandoned it as impracticable and even at last, when it was completed, felt a certain degree of human diffidence in bringing it before the world.

Nor can we wonder that a life-time—an unusually long life-time of labor—was consumed in his preparations for so great an achievement, nor that the faint glimpses which the world caught of the interior of his laboratory while these preparations were in progress, were

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