THE SOUTH.

THE SOUTH AND THE PHILADELPHIA CONVENTION.

WHO SHALL GO?—CHARACTER OF SOUTH CAROLINA MEMBERS OF CONGRESS ELECT—THE NEW KEY-NOTE TO SOUTHERN TONE.

Correspondence of The New-York Tribune.

CHARLESTON, S. C., July 19, 1866.

Our gallant little State is terribly excrciaed just at this time about the assembling of the National Union Convention at Philadelphia on the 14th of August. The South thinks she sees a break in the clouds which have so long overspread her sky; and expects to "strike ile" in the grave deliberations of that august assemblage. *The Daily News* of this city—the organ of the rampant Secession element of the State—after commending and applauding the movement for some time, suddenly "snuffed treason in the tainted gale," and sounded a retreat. This sudden summersault was caused by a note received from a trustworthy gentleman in Washington, referring to an article which appeared in the columns of *The National Intelligencer*, which hinted that Rebels, as well as Radicals, would be rejected. But it has recovered from its temporary spasm, and has wheeled into line again, following the lead of Gov. Orr.

It is proposed by some of the Northern Copperhead papers, that the South shall send to the Convention her members elect to Congress. This proposition is accepted by some of our leading journals. Now let us inquire, who are the members elect from South Carolina? Out of the four representatives to which we are now entitled, two are Brigadier-Generals who fought through the Rebellion, and are ready to fight again in the same cause, should a favorable opportunity present itself. One is an ex-member of the Confederate Congress, and the other is ex-Gov. Aiken from the Charleston District, who is the most conservative of all, and is the only member from the State who could take a seat in the Convention with any degree of consistency or propriety.

The South knows that if she ignores free suffrage and disfranchises the blacks, that her numbers and influence in the national councils will be an impotent minority, "growing small by degrees, and beautifully less." This new move is designed to mobilize and consolidate the Secession, State Rights, pro Slavery party of the South, and their Copperhead sympathizers at the North, and thus form a party that may be respectable in numbers, and hope, if no more, to be able to hold the balance of power. And when our representatives are admitted into Congress, and are able to act in concert with their Northern allies, the old war cry will be raised, and the North and the South will again be arrayed in hostile attitude, as they have been for the last 35 years, with, perhaps, a small change in the programme. The key-note—the abolition of Slavery—will be struck out. But hatred to the "nigger" will supply its place. Therefore we have loved him, adored him, worshiped him, but now we hate him because he is a freeman. With a hoe in his hand, he was all right and we honored him; but with a vote in his hand, he is a devil, and we detest him.

GEORGIA.

THE STATE OF THE CROPS—FREEDMEN'S LABOR—EXPERIENCE OF NORTHERN PLANTERS—STATE OF PUBLIC FEELING.

Special Correspondence of The N. Y. Tribune.

SAVANNAH, Aug. 5, 1866.

The cholera has raged fearfully at the quarantine on Tybee Island, but as that is fifteen miles from here, our citizens are not greatly alarmed about it. Up to the last report we learn that 96 men had died of the disease, and 51 more were ill with it; 38 were also ill of other diseases. This is exclusive of the deaths among deserters in the marshes.

This does not leave more than two-thirds of the 473 men who were landed from the San Salvador. The disease has assumed a milder type, and is now reported to be abating. We have had one genuine case of cholera in the city during the past week, and one suspected case; also a suspected case of yellow fever. The total number of deaths the past week was only 19. The general health of the city during July has been remarkably good. The oldest physicians here never saw a July with less sickness. This is partially due to the fact that our sanitary condition is better than it has been in past years; the streets and lanes are very clean.

The weather has been very fine. Though the first portion of the month was dry, for the past ten days we have been blessed with copious showers. The mercury has not risen above 98 in the shade when fairly exposed, and judging from all accounts, we have suffered far less from heat than our Northern friends.

While corn and cotton have suffered severely in some portions of the State, the recent rains have saved much which was apparently doomed to destruction, and the accounts from the interior are of a more cheerful character. I have talked with a great many planters of late—men who are cultivating rice and long staple cotton on the Sea Islands or near the coast, both in Georgia and South Carolina.

The Southern men all agree in saying that the negro won't work either for himself or for them, and that with few exceptions they are untrustworthy; that the new system is a failure, and that nothing but the lash will make a full crop. Most of them expect to make only about half a crop, have no faith in free labor, and talk dismally of the future.

On the other hand, all the Northern men whom I have conversed with—though having numerous difficulties to contend with are expecting to make from 200 to 600 per cent on the capital invested this year, and many of them have sold their crops in advance at that rate. Not a single man have I seen who does not say that he is making money by the cultivation of cotton or rice, and that almost any Northern man can do it as well. Every man of them counts on larger profits and better crops next year than this, because the land had grown up to weeds, and they met many difficulties which they will not encounter next year.

A young man from Massachusetts leased a plantation of 5,000 acres last Winter on the Savannah River, within 10 miles of the city. I went all over the rice fields with him a month ago, and he informed me that the total expense of cultivating the place, including rent, would be about $20,000 for this year. His crop, as estimated by good judges, will be at least 55,000 bushels of clear rice, worth in gold $1 per bushel on the place. Of course, it will be worth much more now. He has an old overseer—they call him Superintendent now-a-days, and the hands perform the same tasks now which they did under the old system. He will cultivate the same land next year if no accident befalls him, and expects to make a larger crop if the season should be as favorable as the present has been.

Col. ——, also a Northern man, cultivates a rice plantation on the Ogeechee River, and is doing well. He complains that some of his hands slight their work, and get through with their tasks at 11 or 12 o'clock, instead of 1 or 2 o'clock p. m., the usual hour, and though he will not have so large a crop by it, still he will get a good average crop, and make about as much as our Massachusetts friend. Another year he will plant by machine, and probably hoe and harvest also by machinery. He is perfecting a kind of horse-hoe, which will cultivate between the drills, and cut up all the weeds, leaving little for the hands to do afterward. He is daily expecting a reaping-machine, to harvest his crop, as it will undoubtedly do, with slight modifications, and thus dispense with reaping by hand.

A gentleman from Maine called on me last week. He, in company with nine others—all discharged Federal soldiers, from different States North—came to South Carolina last Winter with from $1,000 to $3,000 each. They found one of the wealthiest men in South Carolina on his plantation near Beaufort. He had several thousand acres of land, but no tools, stock or money, and his old servants mostly lying idle on the place. They rented 5,000 acres of his land, for one year, at $2 50 per acre, and immediately divided it into ten farms, each man owning a farm. They agreed that they would cut loose entirely from the old system of task work, and make their hands labor a full day, as all farmers do North. Each man hired his hands—who had always worked on the place—and agreed to pay them 50 cents per day, or $15 a month when they worked, agreeing to accept only good work, and deduct for lost time, and bad work, $1 per day. To compensate for the long day, they *added to their rations*, to the value of a dollar per week over the old allowance, *feeding* their hands *better than anybody else*, and paid them promptly every Saturday night, reserving only the value of the ration for a week in advance, and discharging them whenever they desired to leave.

At first, the hands declared that they could not work without a task, and then, at 1 o'clock p. m., they left the field, because their day's work was done. It took them some time to understand that they would only receive pay for half a day if they returned at that hour, but finally they became accustomed to working a full day, and liked the new system better than the old. He assured me that their day's work is about one task and a half on an average.

They are surrounded by negroes planting for themselves, and by Southern men working on the task system, all planting "Sea Island" or "long staple" cotton. The former occasionally leave their little farms a week and hire themselves to him, to purchase rations, their capital having been too small to support their families a year, or till the new crop was harvested. They invariably refuse to hire for a long period, and return to their own crops in season to prevent them from suffering. It is generally agreed that it will be impossible to hire those men next year, as they will make enough this to support their families next, and enable them to get a good crop for themselves, without hiring to anybody. They are very ambitious to be their own masters.

This man says that he had only $900 when he began business on the plantation, and will need $300 more to pay expenses till after harvest, and that he was offered $5,000 for his crop a few days before he saw me. This will leave him about $3,700 for his years' labor. The consequence of such a state of affairs can be foreseen. Young farmers in the North with a little capital will come South where they can make three times as much as they can at home, and more than double what they can West. It will not be long before they will find this out, and learn that the temperature here during Summer is not high enough to injure Northern men or prevent their labor in the field. They cannot only get nearly double the labor from hands under the new system, but it is performed better. The kindest feeling exists between these Northern operators and the old land-holders, and between the freedmen and their former masters, as far as they can observe.

Any deficiency of manual labor in the South will soon be supplied, when such facts as these become generally known North, and improved machinery will be introduced sufficient to take the place of the "negroes who won't work."

Ten years will not pass away before the South will cultivate a third more land, and raise a third larger crop, than ever before, if the country continues at peace, within and without. But will the country be at peace? Will the South be content to quit politics, and work industriously to develop all her resources? What are the feelings of the mass of her people? Judging from the tone of the Southern press, and from all we see and hear in this city every day, they seem far from being contented or satisfied with their political situation, and evince no desire to "accept the situation," only so long as they are obliged to do so.

No Union man is popular here, or could possibly get one-quarter of the votes necessary to elect him Representative to Congress from this district, or any other in the State, I think; nor could such a man be sent to the Philadelphia Convention by a fair majority of the voters here. The people generally will not allow a Union man to represent them anywhere. One who has "been a good Confederate," and who has the same views now on all great questions which he held during the war, is the man to do it, and none other can or ought to as they feel now.

One of the best passports to Southern society is a good record as a Confederate soldier. So strong is this feeling that many who deserted their army before the close of the war are endeavoring with all their might to prove that they were "good Confederates" to the end, and are so still.

A Northern man, an ex-Federal soldier, or Unionist, may be suffered to live here, and they will endure to trade with him, but the doors of society are closed against him, unless he will renounce his principles, and say he believes Secession to be right, and that the North has been all wrong. Then, to use an expression I heard from Southern lips last week, "they would be cordially welcomed in our midst."

The inhabitants speak well of President Johnson, because they think he would have the "Test Oath" modified, and admit them to representation immediately, if Congress did not prevent it. If they did not think so, they would hate him as fiercely as they do Congress.

With all their animosity toward the North and Northern men here, I should hope that they would remain peaceable citizens; but as they openly express a belief and an earnest desire that they "may have another chance to raise the Confederate flag soon," and that unless they are admitted as they are, speedily, they don't care how soon civil war is again inaugurated, we cannot avoid feeling that we have cause for some uneasiness.

I know several men who came South last year, willing to concede almost anything, to admit every member elect to Congress immediately, but not willing to say the South was right and the North wrong in the late contest. Willing to forgive and forget everything, but not ready to sacrifice principle; men who were good Democrats—almost Copperheads. Hundreds of such men, after residing here for three or six months, have left for the North, and will no longer oppose Congress or the Republican party. Some have been so disgusted as to have become extreme Radicals.

Let all the conservative men who can come South and see for themselves the true state of affairs. Let them reside here, not one, but three or six months, and talk freely with every body, witness the spirit and temper of Southern people, and return North. I venture to say they would never consent to have the "Test Oath" abolished, until satisfied, by actual observation, that these people had entirely changed.

The anniversary of the Independence of Liberia was celebrated here on the 26th ult. by the colored people. Everything passed off very quietly. An oration was delivered by a colored man from Philadelphia, named Sanford. He is a Presiding Elder in the A. Methodist Church, and a very fine speaker, superior to Sella Martin, in my opinion.

Mrs. Jacobs and daughter, who were refused a passage on the steamer Leo a short time since, on account of the mother being an octaroon, and were put off the boat—after they had purchased first-class tickets of men who were unable to distinguish them from white people—have left town. They secured a first-class passage on the next steamer for New-York and carried with them the tickets purchased for the Leo.

SCIENCE.

NATIONAL ACADEMY OF SCIENCE.

THIRD DAY'S SESSION—ANALOGY BETWEEN LINGUISTIC AND PHYSICAL SCIENCE—LIMITATION OF HOMOLOGIES—NEW METHOD OF OPTICAL ANALYSIS—RECENT SOUNDINGS IN THE GULF STREAM—REPEATED LINEAR SUBSTITUTIONS—THE METRIC SYSTEM.

Special Dispatch to The N. Y. Tribune.

NORTHAMPTON, Mass., Thursday, Aug. 9, 1866.

The National Academy of Sciences went into its third scientific session at 9 o'clock this morning. Prof. Whitney of Yale College read the first paper on "Grounds of Analogy between Linguistic Science and the Physical Sciences." He reviewed briefly the considerations which prove the study of languages to be a moral rather than a physical science. Yet linguistic science has many striking analogies with the physical sciences, especially in its method in collecting and observing facts, and drawing from them each of the uses, principles and laws of speech. Speech is a conscious act, but, as a system, the usages of speech are wholly inconscious. Language is not a mere human invention, but a development wrought by the changing needs and advancing knowledge of the races of men. A prolonged and lively discussion followed the reading of this paper, in which the effort was to make out that linguistic science has a physical department. Prof. Whitney agreed that sound is a physical product, but the science which is devoted to thought-bearing sound is not a physical science. Language is a growth which is historical.

The next paper was by Prof. Agassiz, on the "Limitation of Homologies," in which he showed the entire difference of structure between vertebrates, articulates, mollusks, and radiates. He argued from it against Prof. Dana's principle of cephalization. In the absence of Prof. Dana he did not discuss the bearings of his views at any length. Prof. Gibbs of Harvard College read a paper on a new method of optical analysis, which he thought would be of great value when fully developed. Mr. Henry Mitchell then read a paper on recent soundings in the Gulf Stream, giving the mode and results of work near Southern Florida and Cuba, in which he had been engaged. Some discussion on his statistics followed, and also questions. J. E. Oliver then read a mathematical paper on repeated linear substitutions, which was warmly praised by Prof. Peirce, who considered it a great forward step in mathematics.

The Hon. Samuel B. Ruggles of New-York was then invited to sit with the Academy, and present any papers he might have to offer. He came forward, and spoke at some length of the success of the efforts of the Academy and others to introduce the metric system of weights and measures, and especially of the five cent coin, which is five grammes in weight and one-fiftieth of a meter in breadth. The cube of the breadth of five of these coins is a liter. He urged the Academy to continue its efforts, and spoke of the desirability of a uniform coinage for the world, and the prospects of realizing such a good thing.

At 1 o'clock, the Academy adjourned on account of the many papers remaining unread. An afternoon session will be held at 3 o'clock. The eulogy on Dr. Edward Hitchcock will be delivered to-night by J. P. Lesley. Theo. Strong of Rutgers College, Gen. Barnard and Mr. James Hall of Albany are the latest arrivals of members.

SECOND DAY'S PROCEEDINGS.

From Our Special Correspondent.

NORTHAMPTON, Mass., August 8, 1866.

The National Academy of Sciences reassembled in scientific session this morning at 9 o'clock, Prof. Henry, the Vice-President, in the chair.

In my last letter I wrote you that the last paper of yesterday was "On Traces of Glaciers under the Tropics," by Prof. Agassiz, who has just returned from Brazil. It embraced the result of his explorations in the Valley of the Amazon, and gave many most interesting statements as to the traces of glaciers there found.

Prof. Agassiz spoke of the first observations made in Switzerland, showing the much greater extension in ancient times of the Alpine glaciers, which filled up the whole valley between the Alps and Jura, and rose to the hight of 3,000 or 4,000 feet against the latter chain. In making these observations and deducing their results, Prof. Guyot had done much the greatest share of the work, without receiving due credit. Here his (Agassiz's) own part in the work began. He did not believe that this extension was due to local causes, and went to searching for traces of like glacial action elsewhere. He found abundant evidence that Britain had once been covered with continuous glaciers, as is Greenland now, and, after a long and hard fight, the English geologists had fully accepted the truth. He had found evidences of the same action in this country as far south as South Carolina. The whole north of the globe had been covered by a mass of ice down to as low as latitude 32 deg., always pushing southward, not from the sloping of the land in that direction, but because the supplying mass of snow accumulated in the north, and pushed outward. He had gone to South America prepared to look for signs of ice there, and had found them. There were no glacial scratches there, as the upper parts of the rocky strata had been disintegrated by the peculiarly powerful meteorological forces of the tropics, which dissolved them as they lay, for hundreds of feet in depth, and made them distinguishable from drift materials only by the heterogenity and mixture of the latter. He had distinguished drift by these and other indications, and had found so many of the usual signs that he could not but hold that the Amazon Valley had been once the bed of an immense glacier, moving eastward from the Andes. Its terminal moraine had been swept away by the ocean, which had encroached on the land for hundreds of miles on the east; but of a lateral moraine had been found a piece 60 leagues long, in the Province of Sierra. Also were found traces of local glaciers in the mountains, in various directions. He closed with pointing out the exceeding interest and importance, not to geologists only, but to physicists and astronomers as well, of the question respecting the changes and conditions of climate which should have brought about the era of ice and of glacial action.

Prof. Peirce said that it was natural to suppose that that era was caused by a colder climate of the earth, whereas it might as well be the result of a hotter one; in fact, only the latter could explain the greatly increased deposition from the atmosphere; it needed more heat to raise so much vapor. He went on to discuss the causes which might occasion a change of general temperature, rejecting entirely the effect of internal heat of the earth, and showing that a change in the sun's power, or in the constituents and contents of the atmosphere, would be sufficient.

Prof. Guyot, who is the best authority in the country on all matters relating to the glacial period, spoke of his own explorations for a series of years in North Carolina, and his failure to find in that region any scratches—(such as were made by the mass of drifting ice in more Northern regions, and which are found with more or less frequency from the North Pole to Pennsylvania, but especially in New-England)—and was therefore inclined to receive with doubt the theories of glacial action in the Valley of the Amazon until the data were more complete and convincing. Some further discussion was evidently desired, and great interest in this important matter was manifested. It was therefore voted that the subject be continued to this morning's scientific meeting. The subject of the origin, formation, movements and effects of glaciers is one very much mooted by geologists, and now receiving an especially large share of attention. The discussion was most lively and interesting, and questions were very frequent.

At this morning's session, the subject was again brought up, and continued for about two hours.

Prof. Agassiz, after some explanatory remarks, called the attention of the Academy to some facts which had not previously been clearly considered. Wherever scratches had been observed near the sea-coast, it was seen that they extended under the water as far as the eye could reach. This was true on the coast of Maine, on Lake Erie, &c. He thought that the difference in temperature between the water and ice would have prevented this, if the water had been at its present level.

Assume that it is proved that glaciers extended all over the country as low as 32° or even 36°, what must have been the temperature of the earth's surface? He had reached the conclusion that a temperature of 17° Fahrenheit lower than now would answer the conditions. He believed that circumstances made it highly probable that glaciers might exist in the valley of the Amazon, and that everything tended now to prove that glaciers were much more numerous and general than has been supposed.

His reference to the small quantities of matter and periods of time with which physicists deal, as compared with the masses of matter and vast periods of time with which geologists have to do, together with the wide difference of view between himself and Prof. Guyot, called up the latter, who again referred to the lack of evidence of glacial action on the North American continent south of the 32d degree, and urged extreme caution in assigning causes and drawing conclusions while the facts were still so few and so far from exhaustive.

Prof. Agassiz explained that he had entirely abstained from trying to set causes or press them in any way, but had kept silent as to them, in order to press the facts more earnestly.

Prof. Peirce apprehended that it was necessary to suppose that the heat of the ocean was as great in that day as now, while he thought the result of Prof. Agassiz's views must give a far different temperature. With the depth of ice on which Prof. Agassiz insisted, there must have been greater heat for evaporation. There must have been a greater evaporation because there was a greater surface. He could not believe that the surface of the ocean had been lowered 1,500 feet, as many had claimed, with so great an elevation of snow upon the land.

Prof. Guyot held that at the temperature of the atmosphere claimed it could not have contained more than an inch of rain.

Prof. Frazer continued with similar views.

Prof. Henry said that, before Prof. Agassiz's discoveries, he had considered the glacial theory pretty thoroughly worked out, and had subscribed to the conclusions which Prof. Guyot had reached and set forth. He had supposed that the glaciers had not reached below 32°, as was previously held. It was evident that the Winter deposition of snow was greater than the Summer melting. The question, then, is whence came the heat which finally melted this mass of ice? He was inclined still to hold to the old view, that the heat came from within the earth. (Prof. Peirce gave it as his opinion yesterday that 20,000,000 years had elapsed since the surface of the earth had been affected by internal heat.) He thought the facts introduced by Prof. Agassiz belonged to what were called "outstanding facts," which were to be held for consideration until their proper bearing and value could be more fully determined.

J. P. Lesly called attention to a fact which had not been mentioned. Glaciers always have moraines. They destroy or carry forward rocks. The most extravagant powers of erasion have been ascribed to glaciers, one author even holding that the great lakes were scooped out in this manner. Now he thought that this erasive power of ice had not been sufficiently considered in this discussion. Granting all the facts given by Prof. Agassiz, such as the existence of a glacier 1,000 feet thick, 3,000 miles long, and of indefinite breadth, where did all this come from, and what must have been its erasive power?

Passing this point, he insisted on the general insufficiency of the evidence of glaciers south of the central line of Pennsylvania, especially the entire absence of scratches made by ice. He could not conceive that the ice in its movement should have made grooves in the Carolinas like those of the Northern States, and yet that those scratches should have been entirely obliterated while those in the North should have remained intact. Prof. Agassiz insisted that his observations were of great value as contributions to science, however insufficient they might be for generalization.

Prof. Guyot explained that his observations in North Carolina should not be considered as conclusive evidence that there were no ice-scratches in that region. He had explored the country with a view chiefly to topography; yet he thought it very improbable that scratches should have existed and yet have escaped his observations. Prof. Agassiz added a word as to the heavy rains of Brazil, and their great power in destroying rocks and formations in which geological records might otherwise be found. The subject, having occupied two hours of the session, and called out much interesting and lively discussion, as well as broad differences of opinion, was now passed, for lack of time to devote to it further.

The next paper was on "The Secular Acceleration of the Moon's Mean Motion," by John N. Stockwell. This paper was presented by Dr. B. A. Gould, as the author was not a member of the Academy.

Mr. Stockwell gave first a history of the discussion of this important subject. The acceleration of the moon's motion was long regarded as unexplainable by the theory of gravitation, and as casting doubt on that theory, till Laplace, by accounting for it by the change in the eccentricity of the earth's orbit, converted it into as brilliant and striking a proof of the theory. The assigned cause was recorded as fully explaining both the change and its amount, till Adams, by a new discussion, 10 years ago, showed that the amount which this cause would effect was very different from that which appeared to be the observed one. Adams's views were stoutly contested, but at last generally accepted. Now Mr. Stockwell submits the whole problem to a new consideration, and endeavoring to prove that Adams had failed to give due force to one cause, the variability of the sun's perigee, which, if properly employed, would get rid of all the disturbing factors which Adams had introduced, and leave the result of Laplace the correct one. Other consequences of great importance were also derivable. The moon's motion oscillated back and forth about a mean, which was quite different from its present value; the moon was now more than six revolutions in advance of its real mean place. Mr. S. had constructed a table giving the mean and true values for some hundreds of thousands of years.

Prof. Peirce acknowledged a very strong prejudice against this paper and the theory therein presented. La Place's opinion on this subject stood unchanged until Adams overthrew it, and since that time the highest geometrical science and deepest investigation of Europe had sustained Adams's view. There is no such example of discordance between observation and theory. If the views of this paper are sustained, an unknown man will be found to have overthrown all the European geometers. He was on this account prejudiced against the paper, because of its magnificent claims. If its views were sustained, it would be a grand triumph for America. He thought that the Academy ought to examine it very thoroughly by a committee. It owed this as of duty to the author and to science. If the Academy gave an incomplete survey to the paper and an erroneous decision, it would be disgraced. He would add that he had looked at the paper, and that it looked right—written in a right spirit and prepossessing manner. He nevertheless felt bound to say that he did not think it could be sustained.

Profs. Peirce, Newton and Dr. B. A. Gould were appointed a committee to examine the paper and report.

The next paper was "On the Origin of the Solar Heat," by Prof. Peirce. He spoke of the various theories framed to account for the maintenance of the sun's heat. A ball of carbon of that size would burn itself out in about 5,000 years; a ball of molten iron would cool down in not far from the same time. We had no knowledge of any substance which by its combustion could produce for any geologic period the heating effect which the sun produces. A very current recent theory accounts for the undiminished supply by the constant fall of meteors into the sun, producing heat by their impact and loss of motion. To a refutation of this theory Prof. Peirce devoted the bulk of his paper. The various considerations which he offered against it, drawn from the gradual increase of the sun's mass and its effect on the motions of the planets, and so on, were in great part of too technical and detailed a character to be reported; but his final *reductio ad absurdum*, which dismissed the theory with a laugh, was to the effect that the conditions of the meteoric hypothesis were such that if the sun's heat was actually thus kept up, the earth must also derive an equal amount of heat directly from the impact of its share of the meteors upon it; it must get from the meteors just as much as from the sun. He did not attempt a satisfactory explanation of his own, but rather suggested than argued at the end that condensation would answer the purpose; if the sun had been originally of the diameter of Mercury's orbit, it would by contracting have given off its present heat for 30,000,000 of years; and, being still only a quarter as solid as the earth, it might go on to contract and give off the same heat for as much longer.

Prof. Frazar by question brought out some interesting statements as to the velocity of meteors, and comets which were considered to be larger meteors.

Prof. Stephen Alexander expressed his gratification with the paper and with the overthrow of the meteor theory, and brought out from Prof. Peirce further explanations of his views.

The next paper was "On the Morphological Value and Relations of the Human Hand," by Dr. B. G. Wilder, one of the invited guests of the Academy.

He began by defining *morphology* and *teleology* as the law of forms and the law of ends. He, however, especially applied *morphology* to internal forms.

The paper was an interesting discussion of previous opinions of the relations of the human limbs, and of the author's views of the same subject. The statement of former opinions and definitions were most amusing. He considered the human form to be a geometrical figure, with two sides and two ends, which were polar to each other. Thus the arms were, so to speak, supplementary to each other, and to the lower limbs. The morphological value of the hands and feet he did not consider to be great, because they were so liable to change in quality and quanty in adaptation to their uses. Extremities were not the points at which the physiologist would look in determining species, &c. In looking at any vertebra, the back-bone is not examined at either end, where there is greatest variety in form, but in the middle, where there is the least. The natural position of the thumb is outward, corresponding to the little toe, while the little finger corresponds to the great toe.

Prof. Agassiz spoke of the interesting character of the paper, and of the valuable work in this department of Oken, and others. He discussed at some length the relations of the two sides in the various classes of the animal kingdom.

This paper, on motion of Prof. Agassiz, was referred to a committee consisting of Messrs. LeConte, A. A. Gould and Agassiz.

The next paper offered was by P. E. Chase, on "The Correlation of Gravity and Temperature." Mr. Chase, also, is one of the invited guests.

This paper met with some severe criticism.

Prof. Stephen Alexander of the College of New-Jersey is the only member who has arrived in town since my last letter. Ten or fifteen of the invited guests are here; among them, beside those who have been mentioned above, are Prof. S. J. Brush and Elias Loomis of Yale College.

The following papers have been entered for reading this week. It will be seen that the Academy will not reach the end before Saturday:

1. On the influence of the hour of the day on the hights obtained by barometric measurements—ARNOLD GUYOT.
2. On the grounds of analogy between linguistic science and the physical sciences—W. D. WHITNEY.
3. On meteorology—JOS. HENRY.
4. On the drift of the Western and Southern States and their relations to the glacier and iceberg theories—E. W. HILGARD.
5. On the limitation of homologies—LOUIS AGASSIZ.
6. On a new method of optical analysis—W. GIBBS.
7. On astronomical photography—L. M. RUTHERFORD.
8. On the relation of photographic observations, with a determination of the position of the Pleiades from photographs by Mr. Rutherford—B. A. GOULD.
9. On repeated linear substitutions—J. E. OLIVER.
10. On investigation in regard to sound in its economical applications—JOS. HENRY.
11. On the study of young animals and its bearing upon the progress of Paleontology and Zoology—ALEX. AGASSIZ.
12. On the geographical distribution of the fishes in the waters of the Amazons—LOUIS AGASSIZ.
13. On the tertiary formation of Mississippi and Alabama—E. W. HILGARD.
14. On the stature of American soldiers—B. A. GOULD.
15. On recent soundings in the Gulf Stream—HENRY MITCHELL.
16. On a new theory of planetary motion, illustrated by application to the determination of the orbit of Neptune—THEO. STRONG.
17. On the linear evolution of surd forms—WM. WATSON.

EDUCATION.

American Institute of Instruction.

From Our Special Correspondent.

BURLINGTON, Vt., August 7, 1866.

FIRST DAY.

The thirty-seventh annual meeting of the American Institute of Instruction, composed of teachers and others engaged in educational work in the United States, commenced in the City Hall, Burlington, to-day at 2½ o'clock p. m., Mr. B. G. Northrop of Massachusetts, President, in the chair. After prayer had been offered by the Rev. Mr. Morse of the Baptist Church, the customary speeches of reception and congratulation were exchanged, Professor Matthew H. Buckland of the University of Vermont welcoming the members of the Convention to the city and State, and President Northrop rejoining. These preliminaries were quite brief, and, when finished, the Convention—which was very large, and which included a great number of the most prominent educators of the country—proceeded to the serious work which the directors had planned for the present gathering.

On motion of Mr. A. P. Stone of Portland, the Chair was authorized to appoint the usual Committees, and also a Committee to consider the subject of amending or revising the Constitution of the Association. Subsequently the following were announced by the Chairman, viz:

ON NOMINATIONS.—Messrs. Stone of Portland, Ladd of Providence, Higgins of New-York, Adams of Vermont, Lawyer of Connecticut, and Hagar of Salem, Mass.

ON TEACHERS AND TEACHERS' PLACES.—Messrs. Walton and Littlefield of Massachusetts, and Morrison of California.

ON AMENDING THE CONSTITUTION.—Messrs. Philbrick of Boston, Northend of Hartford, Stone of Portland, Richards of New-York, and Foster of Chicago.

The Treasurer, Mr. William E. Sheldon of Boston, presented his report, from which it appeared that the receipts of the last year were $824 82, and the expenditures $633 39; balance on hand, $191 52. The report and documents were referred to an Auditor, Mr. Eli A. Hubbard, Superintendent of Schools in Springfield, Mass.

The first subject brought before the meeting for remarks was that of "Our Schools; their influence on Agriculture, Commerce, Manufactures, Civil Polity, and Morals."

Mr. A. P. Stone of Portland took the floor and gave an interesting address, directed to show the influence of education on the commercial interests of our country, and among other propositions set forth, was one in which he urged the introduction of the Spanish language as a branch of learning to be taught in the High Schools of the land. He also dwelt upon the importance to mercantile men of inculcating in school instruction punctuality, affability, and other qualities of great importance in business intercourse.

The Rev. Dr. Miner, President of Tuft's College, spoke to the points suggested by the relations between school instruction and public morals.

The venerable Absalom Peters, M. D., of New-York, formerly editor of *The American Journal of Education and College Review*, on being called out, responded in an interesting line of remarks in pursuance of the hints given by previous speakers.

Mr. Sheldon, master of the Hancock School for girls, in Boston, was presented as the author of the system of moral training and influence now practiced in that large school, Mr. S. having abolished physical punishment as a means of discipline. Mr. Sheldon spoke very entertainingly and narrated several incidents from his personal experiences. His address tended to show the effect of public education as administered by his system upon the general state of society.

Mr. D. W. Stevens, Superintendent of Schools at Fall River, Mass., next spoke. He stated during some remarks concerning the influence of education on manufactures, that when certain new mills in Fall River shall have been put in operation that city will be ahead of Lowell in point of the extent of her manufactures, the number of spindles then running at Fall River being in excess of those now running at Lowell.

Professor Crosby of Dartmouth College spoke colloquially with Mr. Sheldon of Boston relative to the methods of the latter, as before alluded to, after which the Rev. Dr. Miner again addressed the Convention, narrating personal experiences in college discipline. He stated that the present Sophomore Class in Tuft's College had, in response to what they had supposed to be the wishes of the Faculty, and out of a moral sense of the heretofore disgraceful practice of "hazing" freshmen, presented to him a series of resolutions agreed to with entire unanimity by them, condemning the practice as unworthy, and pledging themselves to a more dignified and gentlemanly treatment of the incoming class of that institution.

Mr. Ladd of Providence gave, in an amusing manner, some advice to lady teachers of the smaller country schools, as to the most effectual methods by which to secure the coöperation of parents, and to become successful in preserving order and discipline in the school-room.

The Committee, at this point, took a recess until evening, and at 8 o'clock the meeting reassembled, the hall being densely filed, both floor and galleries. Mr. Moses T. Brown of Cincinnati was introduced to deliver a lecture upon "Reading as a Fine Art."

MR. M. T. BROWN'S LECTURE.

In commencing his discourse, the lecturer quoted a selection from Goethe's Faust where there was a dialogue between Faust and a student as to declamations from the Greek dramatists, the rules of elocution being enunciated with great dearness and power. There has been no change in the laws of oratory from the days of Horace and Quintilian till the present. Horace said: "You will not touch the hearts of men with your oratory unless it flows from your own heart." The lecturer considered the objections raised against this general rule, and urged that the law of naturalness is not too general, but is alike applicable to painting, statuary, music and elocution.

The common criticism of pulpit orators is that they are dull, and it would really seem that with the body of pulpit speakers dullness is meant to be synonymous with piety. Since the death of Starr King, Mr Beecher is the most conspicuous exmple of those preachers who rise above the dead level of pulpit oratory and entrance men with their power of utterance. The speaker referred severely to the clergy, styling their style in the desk as usually self-conscious, and dullin the extreme.

Thesecker after knowledge in this line of inquiry asks: 1. How can power of elocution be gained? and, 2. What are the aims and underlying principles to guide the utterance? It is in oratory, as in art and music, that simple and identical rules are to be held in constant view, inasmuch as they underlie the scene of vocal expression equally with the sciences named. These are to be observed with reference to thought, feeling emotion and passion, as in art and music. Hence the evident claim of reading to be regarded as one of the fine arts.

The English contributions to knowledge touching this science have been chiefly, Steele, Sheridan and Walker. Of Americans, the most eminent have been Dr. James Rush, Prof. W. S. Russell and J. E. Murdock. The distinguishing characteries of the Greek orators and the English elocutionists were reviewed with great nicity. Dr. Rush's sysem inculcated, primarily, fidelity to the natural mode of utterance as the most important guide to success in elocution. The lecturer took up and examined the theory of Dr. Rush, and viewed with much careful analysis the correlative ideas of quantity, form, time, stress and pitch. The inquiry comes whether these ideas are arbitrary, or whether they have such a foundation in nature. Illustrations were abundantly given, with fine effect, to show that the laws of oratory are equal and natural.

Art is the attempt of the soul to create expressions of nature, either visibly or audibly. The creation is God's expression of himself, and subordinately man repeats this lesson in the manifold ways which the varying tastes and habits of the races suggest. The passions, wants or tastes of men thus find expression according to circumstances, as said raceflinds subjects or incitives to art. In reading we have the printed page, the arbitrary symbol, and the inflections of the voice, as the two instrumentalities wherewith to depict the emotions of the soul. Here a parallel was drawn between reading and elocution, to show the equal claim of the former to rank with the latter. The tones of the voice are the natural means of expressing the emotions of the soul equally with the notes of music or the strokes of the brush. It was this which gave to Whitfield, and Clay, and Jenny Lind, and Madame Rachel their magical and yet varying power. All reading is the attempt to express the written thought or emotion. To do this adequately is the work of an artist, and the developing of this science is the consummation of the finest art.

The lecture abounded throughout with illustrations from Shakespeare and other dramatists, and was brought to a very effective conclusion by some practical suggestions to those engaged in educating the young how best to develop their taste for fine reading.

With the lecture of Mr. Brown the sessions for the day were brought to a close.

AN ART JOURNEY.

From Our Special Correspondent.

PHILADELPHIA, July, 1866.

When a TRIBUNE letter came, with marching orders for Philadelphia and Washington, how could it be helped that Cowper's melancholy lines rushed into my head—

"Man's inhumanity to man
Makes countless thousands mourn!"

For, when Fifine brought the portentous envelope, I was stretched at ease under my apple-tree reading "Romola," looking up every now-and-then, from the Italian splendor of those wonderful pages, to calm the spirit, stirred to its depths by Tito's story, the most tragic, perhaps, of modern fiction, with the pastoral beauty of our shining river, gliding seaward between its peaceful shores; while, overhead, the cat-bird sang; and, near-by, amid her womanly labors with the roses and petunias, the wearer of the little round hat came and went, the white dress shone, and friendly challenges shot back and forth across the languid air.

But, what is "home" to a newspaper editor, who cries, "Heads off," on the slightest symptom of mutiny? I knew better than to disobey, and with an alacrity that was distressing to lazy people to see, I ordered Fifine to tell John to see that the trunk was brought down. Fifine is a dear little paddy with dark hair and a low forehead who has been indued with a little frilled muslin-pancake on the top of her head, and who is called a "bonne," and takes care of the children. Her real name is Bridget O'Shaugenessy, but "Fifine" is shorter, and so much nicer!

Thank the lords of Irvington and thereabouts, we are graciously delivered from the nuisance of the Hudson River Railroad in Summer. No man, now, need be choked with dust, blinded with cinders, covered under a shower of dirt and deafened with clatter unless he be obstinately set on the endurance of these tortures. For my part, I should as soon think of leaving my quiet writing-room and taking a little camp-stool for a quiet smoke in the middle of Broadway at the Fulton-st. crossing, about 3 o'clock in the day, as of using the cars when I could take one of our new boats. It would show a perverted mind. No, I came down in the cool of the morning in the "Sleepy Hollow,"—which is the name of one of the boats a company of rich men in Irvington and Tarrytown have built for their own accommodation and that of the public. Pleasanter boats never were nor could easily be. They are said to be not as fast as is desirable, but that is a point that troubles me very little; and I should think them fast if fault-finders wouldn't say to the contrary—but I am sure carping can pick no flaws in the way they are managed. Think of it. You can actually ask the officers for information and not have your head bitten off! And I heard a gentleman the other day make a slight complaint to the clerk of the Sunnyside and receive the assurance that the thing complained of should be rectified. In short, the boats seem managed with a quiet but pervading desire to make everybody as comfortable as possible. There is no noise, they take no freight, there are no unnecessary rules, there is abundance of room, plenty of chairs, and a man is carried on a sort of Alladin's carpet to his home or to his business, talking, smoking, reading, sleeping—out of the dust and noise of the city, through this ench