

## CORRESPONDENCE.

## PHILADELPHIA LETTER.

(FROM OUR REGULAR CORRESPONDENT.)

April 25, 1877.

Last week I made a short visit to Philadelphia, and spent a few hours in the familiar but almost deserted Centennial grounds. Of the buildings, nearly all remain, and their silence and emptiness, when contrasted with their gay and overflowing life, a few months ago, greatly intensifies the impression of loveliness.

But soon there will be a change. On the 10th of May the permanent International Exhibition will be opened, not with the *eclat*, ceremony, and historic significance, that characterized our somewhat too boastful salutation to the "fete despotisms" one year ago, but, if with less noise, not without a fair prospect of permanent success and usefulness. It is impossible not to admire the energy and courage of the Philadelphians who have undertaken single handed and alone so unique and gigantic an enterprise as a permanent International Exhibition; for, it must be remembered, that this is the venture of private individuals without the solid assistance of State or National appropriations, and independent of the enthusiasm excited by a great national epoch. The necessary funds have been collected, and, since those who have the matter in charge have profited from their experience in the last Exhibition, the arrangements will be more complete than they have ever been at any former world's fair. The representations of foreign nations will, of course, not be as conspicuous in this exhibition as they were last year, but England and her colonies, France, Brazil, and Japan, will have interesting displays. Germany will be but poorly represented.

Arrangement with reference to nationality will not be attempted in the permanent exhibition, but the distribution will be according to class, art, and industry, thus affording the visitor much better opportunity for study and comparison than he had, at the former exhibition, where each country had an independent show. As in the former exhibition space will be allowed the exhibitors free of charge, but they will be expected to pay ten per cent of all sales to the permanent exhibition association, which fund will be used to defray current expenses. The admission fee will be twenty-five cents, and the gates will be closed on Sunday. That it has been possible to fill the main exhibition building with interesting exhibits is certainly remarkable. This building, it will be remembered, covers precisely twenty acres. A hall, that is 140 by 60 feet is thought to be of very respectable size, but this is as large as just 1000 such halls.

Among the new attractions will be two immense aquaria, one for salt water, and the other for fresh water animals. There is also a large picture said to represent a review of troops after the battle of Yorktown. The picture which is after the window curtain order of art, it is said, was originally painted for something else, still it will answer for the review at Yorktown or any other place, but like the bloody dabb of the Battle of Gettysburg, by Rothermel, it offends the nostrils of the aesthetic.

It is designed to make Memorial Hall an arc-museum after the model of the Kensington Museum in London, and although it will be years before it reaches the excellence of its great pattern, still Philadelphia and the country are to be congratulated upon the substantial foundation that has been laid. Last year the exhibition proper attracted so much attention that not a few visitors left the city without having seen the most complete Zoological garden in

this hemisphere, and one of the best in the world, and yet it has been completed and stocked in the short period of four years.

I forgot to mention that there will be no charge for admission to Memorial Hall, nor to Horticultural Hall, and that the beautiful flower parterres in front of Horticultural Hall, that attracted so much admiration last year, will be cultivated at the expense of the city. Machinery Hall still remains, but it is not at present known for what purpose it will be used farther than that the Franklin Institute will use it for an annual exhibition of machinery. Other buildings, such as the Imperial German pavilion, the English Govt. building, and the small Japanese buildings, which were presented by their several governments to the state of Pennsylvania, will be among the free attractions at the old Centennial grounds. I believe that, should there be no rebellion against its intolérable long name, the Permanent International Exhibition will be a success.

## The Chemistry of Vision.

If we admit that during the act of vision the retina, as a structure with a carbon nucleus, undergoes metamorphosis, the principles of photochemistry would lead us to expect that the yellow must be the brightest ray, and a harmony is thus established between this and other functional changes in the body. We also perceive the significance of certain structures of the eye which otherwise would appear to be without meaning. The rapid retrograde metamorphosis which must be taking place in the retina involves the provision of some means for moving away the wasted products and supplying nutrition with the utmost quickness. And this is the office discharged by the choroid.

But such removals and supplies require time. Time, therefore, enters as an element in the visual operation. Sight commences instantaneously, but the image of an object may be seen long after the reality has disappeared. This instantaneous commencement of a retinal impression may be very strikingly illustrated. The spark of a Leyden jar, though it does not last, as is affirmed, the millionth of a second, can without any difficulty be photographed even on osluggish a compound as silver iodide. On the far more sensitive retina the chemical impression must be practically contemporaneous with the impinging of the light.

If, after the eyelids have been closed for some time, we suddenly and steadfastly gaze at a bright object, and then quickly close the lids again, a phantom image is perceived existing in the indefinite darkness before us; By degrees the image becomes less and less distinct; in a minute or two it has disappeared.

The chemical hypothesis renders a very clear explanation of this effect—an explanation that commends itself to our attention as casting light in many cases on the curious phenomena of apparitions—phenomena that have been not without influence on the history of mankind.

The duration and gradual extinction of the retinal phantoms correspond to the destruction and renovation taking place in the retina itself. The blood supply is very ample, as are likewise the channels for the removal of waste, but the operations require time to be accomplished. As in machines contrived by man, so in natural organs, the practical working does not always come up to the theoretical standard. Theoretically, as the retina suffers change under the incident light, the removal of waste and nutrition should go on in an equal manner both as to time and quantity. A marvelous approach to the ideal perfection is attained, for though the action of light must necessarily be cumulative, that is, in-

creasing with the continuance of exposure, objects do not become brighter and brighter as we look at them, but they attain their predestined distinctness at once. The action of the light, the removal of the waste it is occasioning, and the supply for renovation are all contemporaneously going on with an equal step, or so nearly so that such may be considered to be the practical effect.—Dr. J. W. DRAPER, in *Harper's Magazine for May*.

## The Effects of a European War.

War in Europe does not mean unlimited prosperity in America. When the war-drum throb, anywhere in the civilized world, some share of the suffering and loss must fall sooner or later to every nation. Modern finance and modern commerce have bound all nations together with ties that cannot be seen but cannot be broken, and the true interest of each has become the best interest of all. Jay Cooke could not fail at New York without causing starvation in many an English town, and the Sublime Porte cannot send devout Mussulmans to be food for Russian cannon without bringing disaster, near or remote, to pious Christians in Maine or California.

It is very much the habit to take it for granted that war in Europe will be a great blessing to this country. War between civilized nations needs to sustain its grain and gold as well as blood and iron, and the immediate demand for the support of combatants, in food, clothing, and munitions of war, will not be inconsiderable. But the main and obvious fact is that ports from which about 42,000,000 bushels of grain are usually sent to supply European demands will be closed by a struggle between Russia and Turkey. The number of consumers will be unchanged; the number of producers will be greatly diminished. Grain, meat, clothing, weapons, munitions, and many manufactured articles will be purchased from this country in much larger quantity because of the war. Already cargoes are dispatched by telegraphic order; already factories open their doors, and the prices of our chief products for export advance. But the medal has two faces. We are certain to ship larger quantities of products at higher prices, and in the exchanges of nations these products are as good as gold, and yet the premium on gold in American markets rises swiftly.

It is not possible as yet to measure the financial disturbance which war in Europe will cause. It is easy to see why gold temporarily rises and United States bonds fall, but not as easy to see why the former effect should be only temporary, as many expect, if the war lasts. Men say, "War creates extraordinary opportunities for employment of money; disturbance in the money market also creates extraordinary demand; and men sell what they can sell at least loss in order to realize the money needed." Turkish and Russian securities have become nearly unsalable, and decidedly not good collateral for loans; new demands for money spring up on every side; and the people want to realize in order to employ money at better profit, or who must realize in order to protect themselves, sell United States stocks because these sell quickly and at small sacrifice. This reasoning undoubtedly applies to some transactions. But the slight decline in United States bonds is by no means commensurate with the rapid rise in gold. The truth is that something else is coming to this side much more largely than the bonded debt of the nation.

It does not seem probable that very large transfers of Government bonds will be made to this country. There are a great many sellers, no doubt, in every foreign market, but there are also a great many buyers,

and the more because European securities are depressed and the future of European nations is clouded with doubt. Unhappily, we owe to Europe very large sums which are not represented by Government bonds. Our State and county and municipal bonds, our corporate securities, and especially our railway bonds and stocks, are held there to an enormous amount. Confidence in such securities has been terribly shaken by recent events. When thousands of former holders wish to realize on the securities, there will not be found, as in the case of Government bonds, other thousands anxious to invest. A great exodus of American securities of the less satisfactory kind is likely to be an immediate effect of the war, and if the struggle is prolonged, and involves great exhaustion of European capital or the borrowing of large sums at high rates by European governments, this shipment of securities to America seems likely to continue.

Inasmuch as we owe nearly or quite \$2,000,000,000 abroad in the form of bonded debt, the credit of corporations and municipalities not known to be strong is likely to be severely tested. Not a few railways, which have struggled until now against bad management or adverse fate, will be forced to surrender at discretion long before the Turks lay down their arms. Stocks of all kinds, mining, railway, and manufacturing, are also largely held abroad, and in many cases are likely to come back. It is unfortunate for us that this disturbance in Europe so closely follows events which have impaired confidence in the management of many American corporations and municipalities. But we must face facts as they are, and it seems probable that, for some time to come, a large share of our exported grain and produce will go to pay for bonds and stocks returned to this country.—*N. Y. Tribune*.

## A Slight Mistake.

The present Archbishop of Dublin the gifted author of the work, so widely known, on the *Study of Words*, is not in very robust health, and has been for many years apprehensive of paralysis. At a recent dinner in Dublin, given by the Lord-Lieutenant of Ireland, his Grace sat, on the right of his hostess, the Duchess of Abercorn. In the midst of the dinner the company was startled by seeing the archbishop rise from his seat, and still more startled to hear him exclaim, in a dismal and sepulchral tone, "It has come! it has come!"

"What has come, your Grace?" eagerly cried half a dozen voices from different parts of the table.

"What I have been expecting for twenty years," solemnly answered the Archbishop—a stroke of paralysis. I have been pinching myself for the last twenty minutes, and find myself entirely without sensation." "Pardon me, my dear archbishop," said the duchess, looking up to him with a somewhat quizzical smile—"pardon me for contradicting you, but it is I that you have been pinching."—*EDITOR'S DRAWER*, in *Harper's Magazine for May*.

## Temple of Diana.

Mr. Wood, the successful excavator and discoverer, writes to the *Sunday at Home* of what has been accomplished, and what remains to be done, at the Temple of Diana at Ephesus:

"When the site had been completely cleared and the measurements taken, the temple was found to have been octastyle and dipteral; having eight columns on the flanks; one hundred of these columns, which were six feet in diameter and sixty feet high, surrounded the naos, or cell; thirty-six of the columns were sculptured and five examples of these sculptured columns were found on

the site. The temple measured nearly one hundred and sixty-four feet by three hundred and forty-three feet, and it was raised to the height of nine feet five-and-a-half inches from the pavement surrounding it, on a platform, which measured on the lowest of fourteen steps two hundred and thirty-nine feet by four hundred and eighteen feet. The cells was nearly seventy feet wide, and was probably adorned with two tiers of columns and entablatures. The major part of the sculpture has been chopped up into small pieces, large heaps of which were found ready to be thrown into the line-kilns found on the site. All that was found was sent to England from time to time in the mea of war which were sent to Smyrna for the purpose; and in the British Museum can be seen all that was imported. At the extreme end of the Elgin Gallery will be found three of the sculptured drums, the base of one of the large columns of the peristyle, a portion of the frieze, two capitals, a lion's head from the cornice, a fine specimen of the enriched cymatium, and several interesting fragments of archaic sculpture. These are some of the most important blocks; but the great mass of the antiquities brought over remain in the sheds under the portico of the Museum until more space can be spared for the exhibition of sculpture in the rooms and galleries which will in time be devoted to them.

When the excavations were suspended in April 1874, I had cleared out and examined the whole of the temple site, and thirty feet beyond the lowest step of the platform on which it was raised, excepting on the east side, nearly one half of which has not been explored for more than six feet beyond the lowest step of the platform. In this large unexplored area, and amongst the ruins of a portico which was found surrounding the temple at a distance of thirty-one feet, who can tell what valuable remains of the temple may not still be found on farther explorations? I am most anxious that the excavations should be continued, and only await marching orders to return to Ephesus and renew my labors there."

From the New York Observer.

## Taking Turns.

The following correspondence explains itself:

—, April 12, 1877.

Dear Sir:

Having heard that the pulpit of the — has not yet been filled, I write to ask you to put the name of my friend, the Rev. —, before the people. He is just the man for the place, and I am yours, \* \* \*

ANSWER.

—, April 14.

My Dear Sir:

Your request is cheerfully complied with, and your friend will be invited to preach when his turn comes. There are now seventy-three names on the list of candidates recommended, and, if each one of them is heard not more than two Sabbaths, your friend will be wanted about three years hence. It is well that you wrote so soon, because applications are coming in so rapidly some of them will have to wait four or five years.

— Always yours, \* \* \*

Love is represented as blind. But there is a love that is keenly sensitive to anything in the loved one that mars symmetry of character. A love which seeks in the most delicate manner to lead the loved one to see what may be remedied, and is tenderly, unobtrusively helpful in every effort made for improvement.

As the moon lifts up the dark sea in its silvery arms, as the steel turns to something somewhere, a power which it must obey, so conscience is moved upon and drawn upward.