

## THE OLYMPIC GAMES.

After a lapse of fifteen centuries Greece has seen the revival of her Olympic Games, and in this revival it is gratifying to national pride to be able to chronicle that American athletes were more successful than those of any other country. The Olympic Games were the most prominent of many similar periodic celebrations or festivals in other places. The Olympic Games were first held in 776 B. C. in Olympia in Elis. The festivals were celebrated at intervals of four years in honor of Zeus. The importance of the games was so great that the Greeks computed time by them, the period between one celebration and the next being called an "Olympiad." For the country at large the festival ministered to the selfish and malignant passions of rival cities, each of which felt its honor concerned in the success of the individual. To the winner, however, the games brought lifelong honor, for when he returned to his city the walls were thrown down to give him entrance, he was caught up and borne in triumphant procession and he was freed from all taxes. The games were finally abolished in A. D. 394 by the Emperor Theodosius.

In walking through the Stadium of Athens on April

After several disappointments the Greek flag was raised amid cheers only to be replaced immediately by the stars and stripes, as the winner had been erroneously announced; for an instant you could almost hear the crowd choke down its bitter disappointment, but after a moment's hesitation it broke out into magnificent applause.

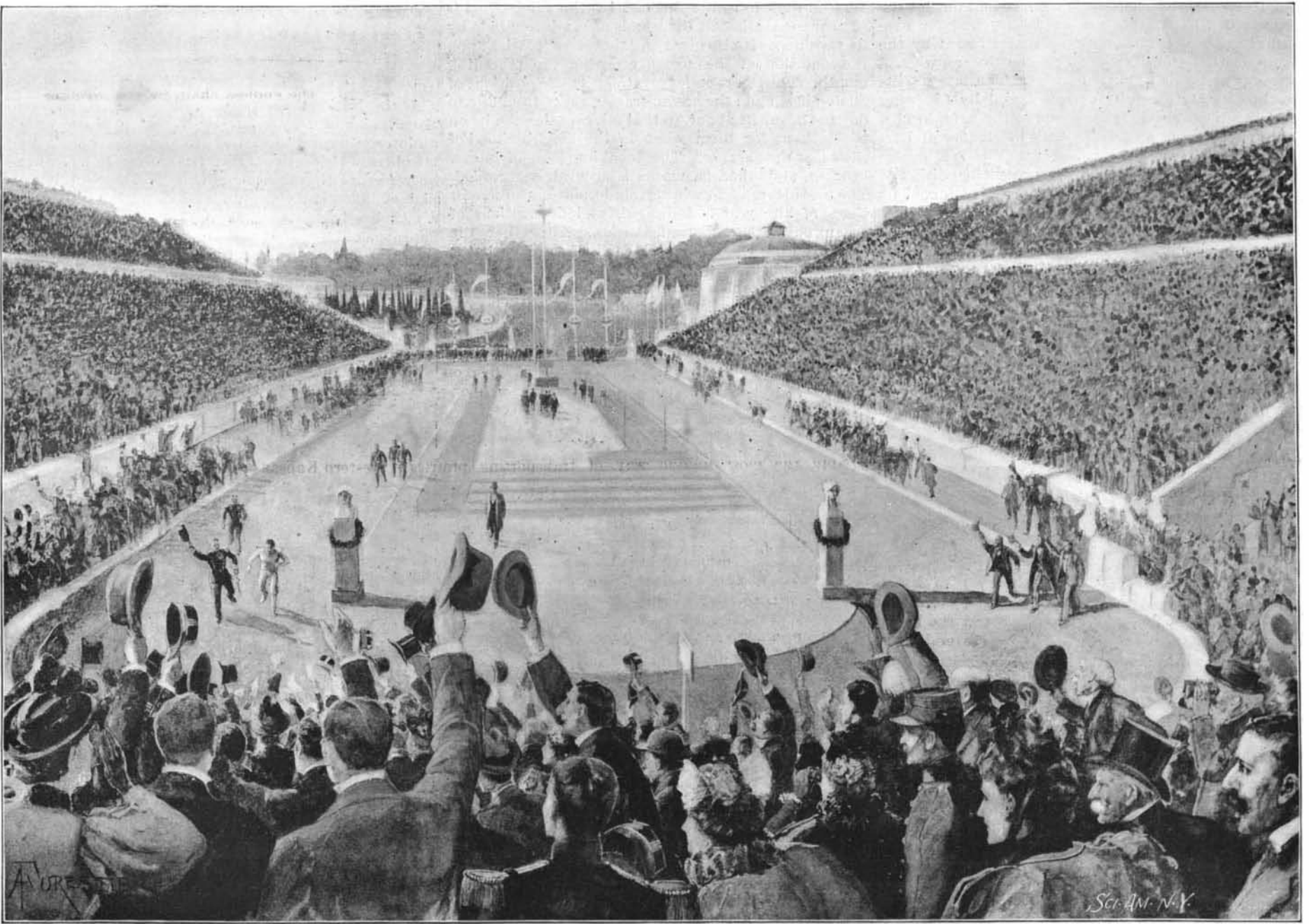
The two great dramatic events were the throwing of the discus and the run of 40 kilometers from Marathon. When Robert Garrett, of Princeton, threw the discus 95'6 feet, defeating the Greek champion Paraskevopoulos by 7½ inches, the Greeks felt keen disappointment at being beaten at their own sport. Their chagrin was allayed by the magnificent victory and wonderful record of Loues in the race from Marathon to Athens, 26.1 miles in 2 hours, 43 minutes.

When the signal gun announced the approach of the winner all rose from their seats and strained their gaze toward the entrance to the Stadium. The cavalry dashed down the street, clearing the way for the runner. He was sighted approaching the goal with weary, panting strides. In an instant there arose a mighty cry of "We win!" "It is a Greek!" The athlete was seized by the two princes, and he passed the king mak-

acute sunburn than in the frigid zone. The heat of ordinary exercise compels him to throw back the hood of his fur coat, and by thus exposing the head not only his entire face becomes blistered, but—especially if he is fashionable enough to wear his hair thin on the top of his head—his entire scalp is affected about as severely as if a bucket of scalding water had been poured upon him. At a later period, Lieutenant Schwatka's entire party, while upon a sledge journey from Marble Island to Camp Daly, were so severely burned that not only their faces but their entire heads were swollen to nearly twice their size. And a fine looking party they were. Some had faces so swollen that their eyes were completely closed on awakening from sleep. When one was fortunate enough to be able to see the others, he could not refrain from laughing.

## A Great Mosaic.

The British vice-consul in Venice, in his last report, says that mosaics still continue in great demand there. The Venice and Murano Company executed last year a splendid mosaic for a palace now in course of construction in Vienna. It measures 1,000 square feet, and is copied from cartoons by the painter Edward



ATHENS—SCENE IN THE STADIUM AT THE REVIVAL OF THE OLYMPIC GAMES.

6, while the thousands of spectators rose to their feet, it must have been a proud moment for King George of Greece and Queen Olga. The Stadium is one of the finest amphitheaters in the world. It was scientifically excavated in 1869-70 at the expense of the king. Its recent restoration was made possible through the munificence of a rich citizen of Alexandria. It is 656 feet long and 160 feet wide and its seating capacity is 47,500. The empty amphitheater was imposing, but when filled with the gayly costumed crowd the scene was one which will never be forgotten by those that witnessed it. What must have been the sensations of the victor when the countless thousands of spectators rose from their seats and the applause of the individuals was blended into one great body of spontaneous and generous enthusiasm? It is little wonder the simple crowns of olive obtained under circumstances like these are held as priceless.

We have already published in the SCIENTIFIC AMERICAN of April 18 a list of the principal events and their winners. The interest throughout the games was unabated and the applause was hearty in the extreme. It was indeed hard for the Greek to see the American flag go up so many times in succession.

ing a proud salute. Hats and flowers were thrown into the arena, and it seemed as though the applause would never cease. Then followed, according to the custom of ancient Greece, the bestowal of the much coveted olive crowns, which were presented by the king with a diploma.

The American athletes were charmed with the attentions which they received at the hands of the king and Crown Prince George. They were banqueted several times in the palace of the king and were entertained in various ways. When leaving Greece they were serenaded by the people over the whole line from Athens to Patras. It is almost needless to say the American athletes were enthusiastically received at their various colleges on their return. For our engraving, we are indebted to The Illustrated London News.

## Arctic Sunburn.

To hear of suffering from heat in the Arctic regions sounds incredible to those who have never been there, says a contemporary. Lieutenant Gilder relates the experience of his party from this cause while one summer in King William's land, and declares that probably nowhere on earth is the traveler more annoyed by

Weith. It represents the five parts of the world. Europe stands in the center of the frieze, represented by the symbolic figures of its various nations, having on one side the emblems of industry and trade, and at the top the emblem of the flying genius of light. On the right are the figures of Asia, India, China, and Japan, with their rajahs, mandarins, and the allegorical chrysanthemum. Next follows Africa, with camel drivers, palm trees, and other African symbols; on the left America and Australia, with natives on horseback and on foot, foliage, and other emblems. All this variety of types, from the fair Circassian down to the negro, and the display of costumes, from the most decorative to the simplest, have enabled the painter to arrange twenty four figures with great delicacy of color and in an artistic manner. Over these figures, which rest on an ornamental base, a blue sky reflects all around its light so as to unite all the tints of the mosaic, and to give the whole a harmony of effect which is said to be most delightful to the eye. The same company is executing another important mosaic for the apse of the Guards' Chapel at the Wellington Barracks, in London, from cartoons painted by Messrs. Clayton and Bell.—London Times.

Measuring Ocean Storms. BY GEORGE ETHELERT WALSH.

The study of ocean storms has been of inestimable value to the shipping interests of this country, and each year the laws of sea storms are understood more perfectly through the indefatigable efforts of the United States hydrographic office.

The hydrographic office, without the means and facilities of the weather bureau, has labored during the past ten years to accomplish similar results upon the ocean.

The work of arriving at the present condition of affairs has been long and difficult, as well as ingenious and interesting, and the landsman hardly appreciates what has been done by the government to protect the ships from danger.

By this system, when once put into general operation, the office obtained full and complete reports of every storm by a great number of sailing masters. The vessels would be scattered over a wide territory, some being near the center of the storm, others on the edge, and a few outside of the storm area.

These maps furnished the data for studying the nature of sea storms. From them the office constructed the storm maps and charts, and compiled the rules and directions that are given to mariners when encountering a storm at sea.

The hurricane is a dangerous storm upon the ocean either for steamship or sailing craft, and it is essential for safe navigation that a captain should understand its nature, its force, and the general direction it is to blow in.

More dangerous than the simple hurricane upon the

ocean is the cyclone. The laws concerning this variety of storm are very explicit, but the storm always advances rapidly, and even the most cautious captains are frequently caught in the circular winds which form the center of the cyclone.

The Monthly Pilot Chart is a small publication issued by the department that attempts to forecast the weather in a general way upon the ocean for a month in advance. That this is far more difficult than predicting the weather twenty-four hours in advance by the weather bureau can readily be comprehended, and also that it will be apt to contain more errors.

The hydrographic office made the first successful attempt a few years ago to determine accurately the direction and force of ocean currents. Form slips of paper were given to the captains of vessels, who dropped them into the sea at different points, giving the date, latitude and longitude.

While the main hydrographic office is at Washington, branch offices have been established at New York, Philadelphia, Boston, Baltimore, Norfolk, Savannah, New Orleans, San Francisco, and Portland, Oregon. Complete copies of all the publications of the department are kept on file at these branch offices, so that captains can consult them at any time.

The hydrographic office is now divided into the divisions of sailing directions, meteorology, archives, chart construction, and charts. The hydrographer of the navy is at the head of the department.

The Millennial Exhibition at Budapest.

Budapest is one of the most charming cities of Europe, and the Millennial Exposition, which was opened by the Emperor Francis Joseph, as King of Hungary, on May 2, bids fair to bring a large number of visitors to that city.

Notice to Our Readers.

In order to obtain the opinion of the readers of the SCIENTIFIC AMERICAN as to what invention introduced within the last fifty years has conferred the greatest benefit upon mankind, we publish the accompanying card, which please cut out and return to the editor.

Editor of the SCIENTIFIC AMERICAN. Dear Sir: I consider that..... invented by..... has conferred the greatest benefit upon mankind. Name..... Address .....

The Ethereal Electric Light.

At the National Electric Exhibition in this city, on the evening of May 6, Mr. D. McFarlan Moore gave an interesting and successful demonstration before the members of the National Electrical Association of what he termed ethereal electric light, which was fully explained in our issue of a few weeks ago, vol. lxxiv, No. 9.

He illustrated on the screen many forms of tubes and explained their characteristics. He could obtain better results with a glass tube in which there was a partial vacuum without any interior wire terminals than with, and simply wraps a piece of wire around the exterior ends of the tube, which is enough to produce a glow in the interior.

A very singular experiment was the holding in one hand a connected tube which glowed brilliantly, and the taking hold of the hand of another person who held at arm's length a second tube. As soon as the hands were grasped the second tube began to glow with half the intensity of the other.

The novel applications of the tubes to the lighting of rooms was shown; the light has a peculiar softness that is quite remarkable, and is to be produced so easily that every home can have it. The method is still in an experimental state, but has a good future.

Damage to Trees by Electric Wires.

It is a question whether the stringing of electric wires in cities and villages will not destroy a large proportion of the trees. Complaint is made in several cities that where the wires pass through the foliage the trees in nearly every instance have died, presumably from the effects of the electric current.