

ESTABLISHED 1845.

MUNN & CO., Editors and Proprietors. PUBLISHED WEEKLY AT

No. 261 BROADWAY, NEW YORK.

A.E. BEACH.

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5790

- plan Artificial Ivory Creosote Impurities. By Prof P. W. BEDFORD..... 5794 5794

THE TRANSIT OF VENUS.

The sky was overcast throughout a great part of the value were possible, while at most of the stations enough of addresses were made by prominent citizens. was accomplished to make the watching astronomers fairly well pleased with the results of their day's work.

contact, which was missed, until toward the end of the transit, when the sky became overcast again.

were observed with the twenty-six equatorial, the first and last contacts through thin clouds. The sun was obscured during the middle of the day, yet a number of good meas urements of the diameter of Venus were secured. No black fifty photographs were secured.

At Princeton, Professor Young observed all four contacts, partly through thin clouds, but on the whole satisfactorily. and took one hundred and eighty-eight photographs, mostly excellent; some were affected by clouds. Complete measures of the diameter of Venus were obtained by both filar the highest point in the span of the Brooklyn Bridge is but and double image micrometers. Spectroscopic examination 135 feet-10 feet less than this truly colossal statue. The of the planet's atmosphere showed lines of water vapor conspicuous, and some unknown lines.

disk. When Venus had about one half entered on the sun's face, a tolerably bright point of light was seen near the cir- pulses of the people. cumference of the dark body of the planet outside the sun, and where no direct ray of sunlight could reach it. The physical signification is he could not conjecture. It was ob-

of Venus, some suspecting them to be snow-fields.

tacts were very well seen, with no black drop.

fourth contacts was clearly discerned.

tory. The German astronomers at Hartford, Conn., secured and this safety for their love and exercise of liberty. eight sets of observations with the heliometer. The German were secured, and many micrometrical observations were pedestal at \$200,000 to \$250,000. made. Professor Asaph Hall and the Belgian party at San Antonio, Texas, missed the first two contacts, owing to 5793 clouds. The last pair were taken perfectly, no black drop

THE GREAT STATUE OF LIBERTY

A large and enthusiastic meeting was held in this city United States on the morning of December 6; and, as a rule, November 28, to promote the subscription for the pedestal the atmospheric conditions during the time of the transit of Bartholdi's "Liberty Enlightening the World," to be were not favorable for continuous and exact observation. presented to the United States by the French nation and Yet there were but few places at which no observations of erected on Bedloe's Island, New York Harbor. A number

The chairman of the committee having in charge the collection of money for the pedestal, Hon. Wm. M. Evarts, In this city the observations were fairly good after the first after reviewing the circumstances under which the project was started in our Centennial year, said that a communication had just been received from the Committee of the At the Naval Observatory, Washington, all four contacts Franco-American Union describing the popularity of the project in France. As early as the year 1881 the enterprise had been indorsed by 181 towns in France, acting through their municipal council, by 40 general councils of as many provinces, by all the chambers of commerce of the great drop or other extraordinary phenomenon was observed, ex- cities of the republic, and by 100,000 individual subscribers. cept by Superintendent Sampson at the last contact. Some The statue will probably be ready for transportation next summer.

> Touching the magnitude of the proposed monument, Mr. Evarts said:

> The simple statue will be, from the plinth to the top of the torch, 145 feet in height. From the water level up to dimensions of the plinth, the space occupied by the feet and drapery of the figure, is 40 feet square-as large as a house.

At the Allegheny Observatory, Pittsburg, Professor Lang- It is fitting that so noble a monument of skill and industry, ley's observations were only partially successful. Clouds so generous a contribution, should be framed as a munifiprevented exact determinations of contacts and all photo- cent gift from the French people, as one of the great evimetric and spectroscopical work. He noticed a curious and dences that the great international relations of value and imnovel phenomenon as the planet was entering upon the solar portance between great countries are no longer maintained by courts and cabinets, but spring out of the intermingling

The great Colossus of Rhodes, known in its time as the seventh wonder of the world, was erected to show the gratiposition angle of the center of the bright spot was about 172 tude of the Rhodians to the Egyptian king who was degrees, and it extended for something like 30 degrees along ¹ their ally in war when their liberties were threatened by the the planet's limb. It was luminous and distinct, and, Pro- King of Macedon. They were a small people, inhabiting an fessor Langley thinks, was certainly not a phenomenon of island of but 450 square miles, but that great work of theirs irradiation, nor due to any instrumental cause, but what its was erected at a cost of 300 talents, of the value then of between \$400,000 and \$500,000. It was but 105 feet high. served with the great equatorial and a magnifying power of This statue of Liberty Enlightening the World will be 145 244, used with the polarizing eyepiece by Professor Lang- feet high, upreared upon a pedestal of equal height, and will Observers in other places noticed light spots in the surface Rhodes as the world now, of which it will be the wonder, is greater than the world of the Mediterranean Sea in classic The observations of Professor Eastman, at Cedar Keys, times. The largest modern statue is the one near Lake Mag-Florida, were quite successful, though the first contact was giore, in Italy, erected to the great Christian saint, Charles lost by the intervention of a cloud. The second contact was Borromeo, which, upon a pedestal 40 feet in height, is in obtained very well; no black drop or ligament was seen, itself 66 feet high. Nothing in the history of the world has and the limbs of Venus and the sun were very steady. The approached the greatness of this statue of Liberty. Our sky was mostly clear from 11 o'clock to 1h. 40m. One hun- genius did not conceive so great a statue; our art and our dred aud fifty photographs were taken with dry plates and munificence have not contributed to its production. This thirty with wet plates, all good. The third and fourth con- great free gift we are simply called upon to receive, to place upon a perpetual site under the perpetual care provided by The observations made at Yale College were much im- the Government of the United States, on a pedestal that paired by clouds. Professor Waldo reports over one hun- comports in dignity and in solidity with the statue it is to bear dred and fifty photographs, showing the full sun with a up, and which shall comport with the wealth and the numreference line from a horizontal mercurial surface photo- bers of these great cities and this great country, and show graphed at the same time. The heliometer observations our appreciation of the debt we can never repay to France, were particularly successful, and the definition of the sun and which she simply adds to by this magnificent gift. The in spite of the clouds was such as enabled the atmosphere of numbers of those who will come hither to see the light of Venus to be clearly visible in the heliometer, and the silvery this commemorative statue no man can count, and they shall aspect which this atmosphere assumed between the third and | not cease coming until liberty itself shall have ceased to enlighten the world, nor until this home of the free shall cease Considerable good work was done at Cambridge Observa- to attract the footsteps of the multitudes that seek thisshrine

> All the conditions of our acceptance of this great concepparty at Aiken, S. C., were less fortunate. The French ob- tion and great execution are alrealy fixed. The French servers at St. Augustine, Fla. had a clear day. All the have spent \$250,000 upon the statue, and the best compucontacts were perfectly taken, two hundred photographs tation, without unnecessary expense, fixes the cost of the

THE PROPOSED COTTON CENTENNIAL.

The great success of the cotton fair at Atlanta, and the or point of any kind being seen. Professor Houzeau ob resulting advantages to the cotton growing States, have ledto tained, in addition to these contacts, one hundred and twenty- a still more ambitious project, which the South ought not to

memoration of the hundredth year of the cotton industry of

The Cascade Battery. By F. HIGGINS.—1 figure	At the Lick Observatory, Mount Lamilton, Colo., the day	this country. The first shipment of American cotton across
	was splendidly clear, and many photographs were taken.	the Atlantic was made in 1784, when eight bags were sent
IV. ASTRONOMY, ETCThe Comet as seen from the Pyramids near Cairo, EgyptI flure	The European observers were generally thwarted by bad	to England, where the cotton was seized by the customs
sphere upon the solar spectrum Observations of Capt. A bney and	weather. Favorable observations are reported from Cape	officers on the grougd that it could not have been grown in
Professor Langley.—2 figures	Town and Durban, South Africa.	the United States, and was therefore liable to seizure under
V. MINERALOGY.—The Mineralogical Localities in and Around New York City, and the Minerals Occurring Therein. By NELSON	Professor Davidson's party in New Mexico were favored	the shipping acts as not imported in a vessel belonging to
H. DARTON. Part IIIHobken minerals VagnesiteDolo- miteBruciteAragoniteSerpentineChromic ironDatho-	with a clear sky and steady atmosphere. The contacts	the country of its growth.
lite.—Pectolite.—Feldspar.—Copper mines, Arlington, N.J.—Green	were clearly observed. Two hundred and sixteen excellent	The National Cotton Planters' Association of America are
malachiteRed oxide of copperCopper glanceErubescite 5796	photographs were obtained, and a large number of meas-	responsible for the proposition and the choice of date for
VI. ENTOMOLOGY.—The Buckeye Leaf Stem Borer 5797 Defoliation of Oak Trees by Dryocampa senatoria in Perry	urements were made with great precision. Indeed, not a	holding the fair, and are now waiting to see which of the
Efficacy of Chalcid Egg Parasites	single item in the long programme of the day's work was	commercial cities of the South will subscribe the half million
	missed. At nearly all the Mexican stations the weather	
VII. ART, ARCHITECTURE, ETC Monteverde's Statue of Archi- tectureFull page illustration, La Architectura. By JULI MONTE-	was good. The observations of the French Commission in	munication the President of the Association, Mr. F. C.
tecture.—Full page illustration, La Architectura. By JULI MONTE- VERDE	Puebla were entirely satisfactory.	Morehead, says:
VERDE	Favorable reports are also made by observers in the	"It is proposed to raise not less than \$2,500,000, one-fifth
VIII. HYGIENE AND MEDICINERemedy for Sick Headache 5795		of which, at least, will be required as a subscription from
IX. ORNITHOLOGY.—Sparrows in the United States.—Effects of ac- climation, etc		the city securing the exposition. Every kind of ma-
X. MISCELLANEOUSJames Prescott Joule, with PortraitA	Queensland and Sydney were disappointed. The Ameri-	
sketch of the life and investigations of the discoverer of the me- chanical equivalent of heat. By J. T. ROTTOMLEY	can party at Wellington, New Zealand, took two hundred	exhibited in motion and at work just as in the factory. The
The Proposed Dutch International Colonial and General Export		utmost importance will be attached to exhibits of improved
-		