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NEW YORK, SATURDAY, SEPTEMBER 29, 1888.

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## ELECTRIC LIGHTING INFORMATION.

The National Electric Light Association are establishing a permanent headquarters in New York City ; a practical electrician having already been appointed at a handsome salary to give his entire attention to the laudable project it is designed to carry out. Only these who have had to do with electricity and its applications can be fully a ware how hard it is to keep up with the times in other departments save your own, and indeed even in that one must needs do a deal of reading and not a little travel. At the last convention one of the best known electrical engineers in the coun-
try innocently claimed as his own invention a contrivance that, in some parts, has been in use for nearly three years; there had been so much to read, so many new things to study and ponder over in applied electrics, he had not yet "got round" to what was really an anticipation of his own mechanism. It is now but a few weeks since the electric light men met and discussed some few of the most important matters, and yet he would be a bold man who should to-day attempt to describe the best known means of construction and of operation, of stopping leaks, of locating interferences amid counter-interferences, and the like.
Indeed, so much has been done in each particular department of electrical projection, that it is not possible in the three days sitting of a convention-no! nor in 30 days, or a whole year-to go over all the more or less valuable experiments that have been made and recorded; for, fortunately enough, all the big companies have careful records made of what is done in the way of experimentation in their machine shops and laboratories. Experiments innumerable have been made which, though proving of no value to those making them, are valuable to science and invaluable, perhaps, to those operating in other directions. Nor is there any let-up. Experience, experiment, and discovery are increasing rather than diminishing as time goes on, and it is becoming more and more difficult to keep informed of all that is being or has been done, and, consequently, men undertake great tasks in laboratory and workshop only to learn what was long since known, but hidden away among the musty records of a great workshop.

The permanent headquarters now being established by the National Electric Lighting Association will contain copies of all the records that can be borrowed for the purpose. Information will be asked for in every department, with description of experiments, whatever was their result, and an attempt will be made to index all these, so that whatever is wanted may be readily found. Let us say a subscriber wants to know what has been done in the way of looking for enduring filaments for incandescence lamps, or what experiments have been made with certain kinds of insulating material. He has only to send to or call at the headquarters, and every facility will be given him for finding what he wants to know.
Again, experimental results that are not any use to a man furnishing light might be of great service to one selling power, and vice versa. Did you ever make a laboratory experiment with a distinct purpose, and discover that though you had not progressed your own work, you had gained some apparently important information in another direction? One of the duties of the new establishnent will be to make known
such "finds" to those likely to be benefited-a general exchange being valuable all around-and in many other ways to lighten the labors and inform the minds of working electricians.

## POSITION OF THE PLANETS IN OCTOBER.

## venus

is evening star. She is plainly visible in the southwest soon after sunset, setting on the 1st abou t an hour after the sun, and on the 31st a little more than a hour and a quarter. She must be looked for about $8^{\circ}$ south of the sunset point. She is in conjunction with Beta Scorpii on the 26 th , being nearly $2^{\circ}$ south of the star. Venus sets on the 1st at $6 \mathrm{~h} .26 \mathrm{~m} . \mathrm{P} . \mathrm{M}$. On the 31st she sets at $6 \mathrm{~h} .11 \mathrm{~m} . \mathrm{P} . \mathrm{M}$. Her diameter on the 1 st is $11^{\prime \prime}$, and she is in the constellation Virgo.

## MERCURY

621 is evening star. He reaches his greatest eastern elongation on the 8 th at 11 h. A. M., being $25^{\circ} 14^{\prime}$ east of the sun. He may then be seen with the naked eye in the west, three-quarters of an hour after sunset, but will be difficult to find on account of his southern declination, ' as, at that time, he is $11^{\circ}$ south of the sunset point. He retraces his steps toward the sun after elongation, and meets Venus on the 9 th at $6 \mathrm{~h} . \mathrm{P}$. M., passing $3^{\circ} 9^{\prime}$ south. Observers, who can easily find Venus, may pick up Mercury with the aid of an opera glass, knowing his other incident marks the course of the swiftly moving planet, for he is in inferior conjunction with the sun on the 31st at $7 \mathrm{~h}, \mathrm{P}$. M., and becomes morning star. Mercury sets on the 1 st at $6 \mathrm{~h} .19 \mathrm{~m} . \mathrm{P} . \mathrm{M}$. On the 31 st he rises at $6 \mathrm{~h} .2^{7} \mathrm{~m}$. A. M. His diameter on the 1st is $6^{\prime \prime}$, and he is in the constellation Virgo.

JUPITER
the 24th, being $5^{\circ}$ north of the star. He is near Venus at the close of the month, being $1^{\circ} 30^{\prime}$ northeast. Both planets set then about 6 o'clock, an hour and a quarter after sunset. Jupiter sets on the 1 st at 8 h .1 m P. M. On the 31 st he sets at 6 h . 23 m . P. M. His diameter on the 1 st is $32^{\prime \prime} .2$, and he is in the constellation Scorpio.

## mars

is evening star. He pursues his eastward or retrograde course, diminishing in size and ruddy light, and increasing the distance between Jupiter and himself. Mars sets on the 1st at 8 h .30 m. P. M. On the 31st he sets at 8 h .3 m. P. M. His diameter on the 1 st is $6^{\prime \prime} .8$, and he is in the constellation Seorpio.

## uranus

is evening star until the 10th, and after that time morning star. He is in conjunction with the sun on the 10 th at $8 \mathrm{~h} . \mathrm{A} . \mathrm{M}$. Uranus sets on the 1st at 5 h . 55 m. P. M. On the 31 st he rises at 4 h .47 m . A. M. His diameter on the 1st is $3^{\prime \prime} .4$, and he is in the constellation Virgo.

## saturn

is morning star. He may be easily found, in the northeast, in the small hours of the morning, and may be known by his serene light and his position, about $11^{\circ}$ northwest of Regulus. Saturn rises on the 1st at 1 h . $28 \mathrm{~m} . \mathrm{A} . \mathrm{M}$. On the 31 st he rises - $11 \mathrm{~h} .42 \mathrm{~m} . \mathrm{P} . \mathrm{M}$. His diameter on the 1st is $16^{\prime \prime}$, and he is in the constellation Leo.

## NEPTUNE

is morning star. He rises on the 1st at $8 \mathrm{~h} .1 \mathrm{~m} . \mathrm{P}$. M. On the 31st he rises at $6 \mathrm{~h} .1 \mathrm{~m} . \mathrm{P} . \mathrm{M}$. His diameter on he 1st is $2^{\prime \prime} .6$, and he is in the constellation Taurus.
Venus, Jupiter, and Mars are evening stars at the close of the month. Mercury, Uranus, Saturn, and Neptune are morning stars.

## A Ruined City in Teras.

The surveys at present being made for the Kansas City, El Paso and Mexican Railroad, at a point north latitude 33 degrees and west longitude 106 degrees, have passed along the lava flow which by the local population is called the Molpais. It consists of a sea of molten black glass, agitated at the moment of cooling in ragged waves of fantastic shapes. These lava waves or ridges are from ten to twelve feet high, with combing crests. This lava flow is about forty miles long from northeast to southwest, and from one to ten miles wide. For miles on all sides the country is the most desolate that can be imagined. It has been literally burnt up. It consists of fine white ashes to any depth which, so far, has been dug down. To the north of the lava flow, and lying in a country equally deso. ate and arid, the surveyors have come upon the ruins of Gran Guivera, known already to the early Spanish explorers, but which have been visited by white men less often even than the mysterious ruins of Palenque, in Central America. Only a few people at Socorro and White Oaks have been at Gran Guivera, because it is at present forty miles from water. The surveyors found the ruins to be of gigantic stone buildings made in the most substantial manner and of grand proportions. One of them was four acres in extent. All indications around the ruins point to the existence here at one time of a dense population. No legend of any kind exists as to how this great city was destroyed or when it was abandoned. One of the engineers attached to the surveying expedition advances the theory that Gran Guivera was in existence and abundantly supplied with water at the time the terrific volcanic eruption took place.

## The Electric Arc Light.

Talking and writing about the discovery of the electric arc light, we rightly ascribe it to Sir Humphry Davy. But we nearly always give the date as 1809 . It seems, however, that if Davy did not getually hit the bull's eye in 1800 and 1802, he got at least within the center circle.
Nicholson's Journal for October, 1800, contains a letter signed by Davy, which states that he has discovered that "well hurned charcoal possesses the same properties as metallic bodies in producing the shock and spark when made a medium of communication between the ends of the galvanic pile of Signor Volta."
And in the Journal of the Royal Institution, vol. i., of 1802 , Davy describes some experiments upon the sparks yielded by the voltaic pile, and states: "When, instead of the metals, pieces of will burned charcoal were employed, the spark was still larger and of a vivid whiteness." One is inclined to think that this spark was a true arc as now understood.-Electrical Engineer.

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