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NEW YORK, SATURDAY, SEPTEMBER 29, 1888.

Contents.

(Illustrated articles are marked with an asterisk.)

Table listing various articles such as 'Ballooning with natural gas', 'Inventions, index of', 'Electric arc light', etc., with corresponding page numbers.

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For the Week Ending September 29, 1888.

Price 10 cents. For sale by all newsdealers.

Table listing sections I through X, including 'ASTRONOMY', 'BIOGRAPHY', 'CHEMISTRY', 'CIVIL ENGINEERING', 'ELECTRICITY', 'MINING AND METALLURGY', 'NAVAL TACTICS', 'PHOTOGRAPHY', 'TECHNOLOGY', and 'ZOOLOGY'.

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.

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.

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.

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?

POSITION OF THE PLANETS IN OCTOBER.

VENUS

is evening star. She is plainly visible in the southwest soon after sunset, setting on the 1st about 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° south of the sunset point.

MERCURY

is evening star. He reaches his greatest eastern elongation on the 8th at 11 h. A. M., being 25° 14' 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.

JUPITER

is evening star. He is in conjunction with Antares on

the 24th, being 5° north of the star. He is near Venus at the close of the month, being 1° 30' northeast. Both planets set then about 6 o'clock, an hour and a quarter after sunset.

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.

URANUS

is evening star until the 10th, and after that time morning star. He is in conjunction with the sun on the 10th at 8 h. A. M. Uranus sets on the 1st at 5 h. 55 m. P. M.

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° northwest of Regulus.

NEPTUNE

is morning star. He rises on the 1st at 8 h. 1 m. P. M. On the 31st he rises at 6 h. 1 m. P. M. His diameter on the 1st is 2.6, 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 Texas.

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.

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 actually 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 burned 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 well 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.

Sticky Fly Paper.

Table listing ingredients for sticky fly paper: Resin (14 parts), Burgundy pitch (4 parts), Molasses (4 parts), Linseed oil (4 parts).

Heavy calendered paper should be used, or in a few days your fly paper will be sticky on both sides.