Astronomical Notes.

OBSERVATORY OF VASSAR COLLEGE.

The computations in the following notes are by students of Vassar College. Although merely approximate, they are sufficiently accurate to enable the observer to recognize the planets. M. M.

POSITIONS OF PLANETS FOR NOVEMBER, 1880.

Mercury.

Mercury will probably be seen after sunset early in November. The planet will be 9° south of the sun in declination, and will set about an hour after the sun on the 1st. The best time for seeing Mercury will be on the 3d or 4th. The crescent moon will pass east of Mercury on the morning of the 4th.

Mercury will approach the sun, and will scarcely be seen after the 15th.

Venus.

On November 1 Venus sets at 6h. 14m. P.M. On November 30 Venus sets at 6h. 46m. P.M.

It will be brilliant in the southwest all through November, setting farther and farther south until the 21st. The crescent moon will pass eastward of Venus on the 4th.

Mars.

Mars is not likely to be noticed in November.

On the 1st of the month it rises at 6h. 26m. A.M., and sets at 4h. 45m. P.M.

On the 30th Mars rises at 6h. 16m. A.M., nearly an hour before sunrise, and may perhaps be seen preceding the sun and about 2° north of the sun in declination.

Jupiter.

Although Jupiter has passed its best position, ordinary observers will scarcely perceive its diminished brilliancy.

On November 1 Jupiter rises at 3h. 47m. P.M., and souths before 10 P.M., at an altitude of 51° in this latitude.

The moon passes north and east of Jupiter on the 13th.

On the 30th Jupiter rises at 1h. 48m. P.M., and passes meridian before 8 P.M.

Making our observing hours between 8 and 10 P.M., we find from the "American Nautical Almanac" that the two satellites nearest to Jupiter (the 1st and 2d) may be seen to pass from the face of Jupiter nearly together on November 1, so that Jupiter will be seen at first with two moons only; on November 8 the same two may be seen to enter upon the planet's face again nearly together.

On November 9 the first satellite may be seen to come out from the shadow of Jupiter; on the 16th and 23d this satellite will go behind Jupiter.

On November 24, while the first is in transit, the second will disappear by going behind Jupiter, so that Jupiter may be seen with only two moons.

On November 10 the largest satellite will be seen to move slowly away from Jupiter, and the smallest moon will come out from the shadow. On the 17th the largest satellite may be seen to move toward Jupiter, while the smallest is again hidden in eclipse.

On November 28 the third will enter the shadow of Jupiter early in the evening and remain more than two hours, when it will come out and slowly regain its brightness.

Saturn.

Saturn follows Jupiter, coming to the meridian 50 minutes later, all through the month of November, and reaching an altitude about 4° higher than Jupiter.

On the 1st Saturn rises at 4h. 27m. P.M. On the 30th at 2h. 24m. P.M.

The moon passes east of Saturn on November 14.

Saturn appears small and pale beside the glowing color of Jupiter, but it even surpasses Jupiter in interest. Of its eight satellites, very few can be seen with ordinary telescopes. Titan, the largest, was west of the planet on October 7, and nearly at its greatest distance. As this moon goes around Saturn in a little less than 16 days, it will be seen again far west of the planet on October 23, and far east of Saturn on the last day of October. Its revolutions around can be counted in this way.

Japetus can probably be readily seen in its orbit path far from Saturn, and requiring about 80 days for a revolution.

A telescope which will show Rhea, the next smallest satellite, will afford a great source of interest, as Rhea goes around the primary in 4½ days, and its motion can be seen in one evening.

The ephemeris of these satellites, published by Mr. Menth in the "Astronomische Nachrichten," gives Rhea as in conjunction with the center of Saturn, and below the base of the planet, on November 12, a little after midnight, Washington time.

A good telescope of three inches aperture will enable an observer to see Rhea at that time.

Uranus.

Uranus rises on November 1 at 1h. 46m., and on the 30th at 11h. 52m. P.M.

Its diurnal path is almost wholly between midnight and noon.

Neptune.

Neptune is in excellent position early in the month, on the meridian near midnight, at an altitude of 62°. On November 30 Neptune crosses the meridian circle at 10 P.M.

The Electrical Spur.

As a supplement to the electrical bit, noticed by us some time ago, it may now be stated that Mr. G. Hüttmann, imperial equerry at Vienna, employs the electrical current in a very ingenious manner in order to facilitate the management of the horse, especially for ladies.

To the left side of the saddle a small box which contains a galvanic battery and an induction coil is fastened. From this apparatus two silk coated wires are conducted to a special girth-leather, which end into two blunt metallic brushes touching the flank of the horse at that place where usually the spur is applied. These wires are also connected with the riding whip, which has two ivory knobs. By a pressure of the finger upon one of these knobs the current is closed and conducted to the wire brushes, where it acts as a spur in a strong and sudden manner, while when the other knob is touched a weak and continued current is originated, acting like the pressure of the thigh of the rider.

The electricity may not only be used by ladies, but will also prove useful to the equestrian performer in the circus in order to manage several horses at the same time, and to the groom in order to prevent horses from crib-champing and other bad habits. In Paris electricity is also used for preventing carriage horses from running away, a battery being connected with the bit of the horse.

THE FAN-TAILED POODLE

The *Deutches Familienblatte*, of Berlin, gives the above, which it styles "A new American invention—dedicated to the Society for Preventing Cruelty to Animals."

Hot Ice.

In his experimental investigations of the boiling points of substances under low pressures, Mr. Thomas Carnelley has been able to maintain water in the solid state at temperatures far above the boiling point of water. The conditions under which it is possible thus to heat ice he describes as follows:

"1. In order to convert a gas into a liquid the temperature must be below a certain point (termed by Andrews the critical temperature of the substance), otherwise no amount of pressure is capable of liquefying the gas. 2. In order to convert a solid into a liquid the pressure must be above a certain point, which I propose to call the critical pressure, otherwise no amount of heat will melt the substance. If the second of the above conditions be true, it follows that if the necessary temperature be attained, the liquefaction of the substance depends solely on the superincumbent pressure, so that if by any means we can keep the pressure on the substance below its critical pressure no amount of heat will liquefy it, for in this case the solid substance passes directly into the state of gas, or, in other words, it sublimes without previous melting."

By maintaining a pressure below 4·6 millimeters of mercury—that is, the tension of aqueous vapor at the freezing point of water—Mr. Carnelley was able to keep water frozen in a vessel so hot that it would burn the hand. Other substances also exhibit these same phenomena, the most notable of which is mercuric chloride, for which latter the pressure need only be reduced to about 4·20 mm. On increasing the pressure the substance at once liquefies.

Shooting Oil Wells with Nitro-glycerine.

A few years ago nitro-glycerine was only used in the oil wells in the very small quantities of one or two quarts at a time. Within a short period it has become a very important agent in bringing petroleum to the surface. When exploded in the oil wells over the oil-bearing rock it opens wide seams, through which the oil flows with great force and freedom, thus saving much labor and expenditure of capital. There is now used in every well that is drilled from thirty to two hundred pounds, which is worth eighty cents a pound to the producer. It costs about thirty cents to manufacture, and nets fifty cents on every pound to the manufacturer. Thousands of pounds are consumed every month, and there is a growing demand for it.

A correspondent of the *Sun*, who had assisted at the reopening of one oil well by the explosion of 100 pounds of nitro-glycerine at its bottom, gives the following description of the operation: A cartridge case or shell of tin, 15 feet long, was lowered into the casing of the well by means of a wire rope, and then filled with water. The glycerine was then poured into the shell, and, being heavier than water, forced the latter to flow out. When all the glycerine had been poured in the shell was lowered 1,800 feet into the well, and there rested on what is called an "anchor," 25 feet from the bottom. It was now ready to be set off. There was about 700 feet of oil above the shell. Through the center of the shell ran a small tin tube, inside of which was a small iron rod in four pieces. On the end of each piece was placed a common percussion cap. At the top of this rod was a tin plate so arranged that anything dropped down through the casing would strike it, and the force of the falling article would set off the caps, which would in turn explode the nitro-glycerine. The charge was exploded by dropping a small piece of iron tubing into the well. At the moment of discharge "the earth trembled violently, then came a dull sound, and a second later there rose into the bright moonlight, 100 feet high, a solid stream of oil, which fell on everything near, and continued to fall for three minutes. This stream of oil was one foot in diameter when it began to flow, but it soon settled down to a stream of about 1½ inches, which is a natural flow."

AGRICULTURAL INVENTIONS.

A sulky plow, patented by Mr. Thomas T. Harrison, of Aubrey, Kansas, is an improvement on the sulky plows for which Letters Patent No. 218,734 were issued to the same inventor August 19, 1879. The improvement simplifies the construction and renders the plow more easily controlled.

A fruit gatherer, for gathering oranges and other fruit without bruising or injuring the fruit or trees, has been patented by Mr. Levi J. Knight, of Manatee, Fla.

Mr. Lewis Y. Lenhart, of Red Wing, Minn., has patented a seed planter, so constructed that it may be operated from the drive wheel or by hand power, as the character of the ground may require.

Messrs. William V. Morgan and Thomas W. Hackman, of Allerton, Iowa, have patented an improved sulky plow so constructed that the plows may be easily attached to and detached from the carriage, and may be readily adjusted and controlled.

Mr. John H. McPherson, of Xenia, Ohio, has patented a tooth for grain drills, so constructed that it can be readily detached for sharpening and for convenience in passing from place to place, and which will swing back should it strike an obstruction.

Thread from Wood.

The manufacture of thread from wood for crochet and sewing purposes has, it is said, recently been started at the Aby Cotton Mill, near the town of Norrkoping, in the middle of Sweden. The manufacture has arrived at such a state of perfection that it can produce, at a much lower price, thread of as fine quality as "Clark's," and has from this circumstance been called thread "*a la Clark.*" It is wound in balls by machinery, either by hand or steam, which, with the labeling, takes one minute twelve seconds, and the balls are packed up in cardboard boxes, generally ten in a box. Plenty of orders from all parts of Sweden have come in, but as the works are not yet in proper order there has hardly been time to complete them all. The production gives fair promise of success, and it is expected to be very important for home consumption.

The Public Domain.

The annual report of Commissioner Williamson, of the General Land Office, shows that there were surveyed during the fiscal year ending June 30, 1880, 15,699,253 acres of public lands and 652,151 acres of private land claims. This is an increase in the amount of public lands surveyed of 725,347 acres over that of the last year. This great increase is attributed to the operation of the act of March 3, 1879, which led to a great increase in the number of applications by private individuals for public surveys. Disposals of public lands during the year were made as follows:

	Acres.
Cash entries	850,740
Homestead entries	6,045,570
Timber culture entries	2,193,184
Agricultural college scrip	1,280
Locations with military bounty land warrants	88,522
Swamp lands patented to States	3,757,888
Lands certified for railroad purposes	1,157,375

The area of public lands surveyed in the different States and Territories during the last year is as follows:

	Acres.		Acres.
Arizona	308,521	Nebraska	709,179
California	3,792,630	Nevada	938,694
Colorado	2,775,601	New Mexico	1,624,156
Dakota	2,130,808	Oregon	1,052,221
Idaho	225,637	Utah	440,585
Louisiana	80,504	Washington Territory	847,595
Minnesota	296,253	Wyoming	184,449
Montana	302,413		

In addition to this, surveys were made of private land claims in three States and Territories, as follows: California, 58,708 acres; Arizona, 149,258 acres; New Mexico, 444,184 acres. The total area of public lands surveyed from the beginning of surveying operations up to the close of the last year is shown to be 752,557,195 acres, leaving an estimated area yet unsurveyed of 1,062,231,727 acres.

THE Chester Steel Castings Company have just completed another addition of 60x90 feet to their works at Chester. The superiority of their steel castings for many purposes is becoming better known by locomotive and steam engine builders and machinists generally, and their orders have increased largely. They claim that their castings finish up smoother, admit of a finer polish, and will resist a greater amount of wear and tear than iron forgings, and require less labor in finishing, as a casting can be made nearer finished size than a forging.

An Elevated Railway for Costa Rica.

The government of Costa Rica has entered into a contract with J. Mosen-Chiarin for the construction of an elevated railroad from San José, the capital, to Rio Sucio, there to connect with the railroad in course of construction from Limon. The work is to begin within six months from August 9, and to be ready for traffic within ten months from the same date.

On the Production of Ice and Cold by the Binary Absorption System of C. Tessie du Motay and Aug. I. Rossi. Patented Feb. 3 and June 8, 1880.

In the different systems so far used for the production of ice and cold (excepting the air machine and the Carré machine), recourse has been had to the volatilization of a liquid by relieving the pressure exerted by its vapors on itself by means of a vacuum pump, driven by a steam engine, a mechanical compression, aided by the cooling produced by a circulation of water in a condenser, being invariably the means employed to effect the liquefaction of the vapors, so as to render the cycle of operation continuous. A difficulty has been encountered at the start.

With most of the liquids to which preference has been given the tensions of their vapors, at the temperatures of ordinary running water, reach very high figures. These pressures follow a physical law, keeping an absolute and mathematical relation with the temperatures. In most temperate climates, during the warm season, running waters, or such as are supplied from hydrants in cities, are at a temperature not below 75° Fah., and even more. In these conditions liquid ammonia has a tension of 150 to 160 lb. per square inch; chloride of methyl, 80 lb.; methylic ether, 78 lb.; sulphurous dioxide, 60 lb. In tropical climates, and under many latitudes in the United States where waters are above 85° and 90° Fah., the above figures are higher yet. These may be found the causes of many unsuccessful attempts made to introduce industrially the manufacture of ice.

These pressures render difficult the keeping of joints tight. Hence leaks follow, causing a loss of material and consequent failing in production; in short, the successful operation of these machines is interfered with. The machines have to be carefully constructed, at a great cost, and require for some of these liquids very elaborate and complicated mechanism.

Large quantities of water are necessary for the condensation of the vapors, otherwise the outflowing water will reach temperatures much above 75° Fah., and as a consequence the resulting pressures will be much above the figures above quoted. This question of condensing water plays a very important part in the introduction of ice machines for specific purposes. In certain industries, such as in breweries, where this water is scarce or has to be paid for, it has been found to be a cause of exclusion of many machines. Certain of the liquids employed besides have special chemical properties, which render their use attended with other causes of trouble; among other properties, their action upon metals when in presence of water.

In the "Practical American," vol. 1, No. 5, New York, May, 1880, it is stated that the destruction of a large anhydrous sulphurous oxide machine (system of Mr. R. Pictet, of Geneva), which was in operation in St. Louis during the meeting of the American Association for the Advancement of Science, in 1878, was caused by an accident of this kind; a small pin hole in a casting having given access to more moisture, the sulphurous dioxide employed was transformed into sulphuric acid, causing the moist spot to become more and more corroded, until at last, in one night, all the gas escaped through this hole, and thus was lost the whole charge of the machine, some 4,200 lb., and the condenser destroyed.

About a year ago Messrs. C. M. Tessié du Motay and Auguste I. Rossi, in experimenting on the ethers, have found that, in general, the ethers formed by the acids, as well as their alcoholic radicals, possess the property of absorbing sulphurous dioxide, some of them to the extent of 300 times their volume of gas in certain conditions, ordinary ether standing foremost. They have based on this property a new system for the artificial production of ice and cold, which they have called the "binary absorption system," a graphical description of which has been given in this paper (February 21, 1880).

In this system the liquid employed is the ethylo-sulphurous dioxide obtained from ordinary ether by saturating the latter with sulphurous gas. This liquid, at a temperature of 60° to 65° Fah., has no pressure and can be kept readily in glass bottles at 80° to 90° Fah; it has only a few pounds tension—2 to 5 pounds. Thus a machine charged with it, when stopped, will actually show no pressure on the gauges, and even *a vacuum* at rest, if the temperature is low; while with the other liquids mentioned above, even the stoppage of the machine does not prevent the pressure of the vapors inside to soon reach its point of equilibrium with the temperature outside, and even at as low temperature as 32° Fah., sulphurous dioxide alone, as used in the Pictet machine, has still 15 pounds per square inch of pressure; exerting thus a constant and increasing pressure on the vessels containing it, and in case of a small leak starting causing the entire loss of the charge. What is said here of sulphurous dioxide applies with still more force to the liquid ammonia, methyl chloride, methylic ether, all liquids of which the vapors have higher tensions yet than sulphurous dioxide at the same temperatures.

Now, if such a binary liquid is evaporated under a vacuum it is resolved into its two constituents, the mixed vapors entering the pump together, then under a small compression ether liquefies first, a few pounds pressure being sufficient for it, even with waters such as are met in tropical climates. The ether thus liquefied absorbs in the condenser the vapors of sulphurous dioxide, reconstituting the "binary liquid," and thereby avoiding the excess of mechanical compression which would have been otherwise necessary to effect this liquefaction of the dioxide. Thus to the *work of compression of the pump* is substituted a *power of chemical affinity and absorption* of the less volatile absorbent for the vapors of the most volatile. Thus, to the advantages of low pressure of ether are combined the advantages of intensity of cold produced by the volatilization of the sulphurous dioxide, avoiding its drawbacks. In presence of water and of the ether the sulphurous dioxide is transformed, not into "sulphuric acid," as before, but into "sulphorinic acid," the action of which acid upon meta's is insignificant if not absolutely null. The sulphurous acid being an extinctor relieves the ether of one of the drawbacks of its use, and acting as self-lubricant renders the greasing of the working parts unnecessary.

In a machine on exhibition at Messrs. C. H. Delamater & Co.'s, foot of 14th street, N. R., which has been running several months, making 6 tons of ice daily, the pressures in the condenser in normal and regular running have been of 14 to 15 pounds, reaching as low as 10 and 11 pounds in best conditions, and not higher than 20 to 23 pounds in the most unfavorable conditions of water, etc.

The water used for condensation has been ¼ to ⅓ that used and necessary for a Pictet machine of same production, the pressures being ½ to ⅓.

In these conditions of pressure the machine has worked easily and without wearing, the gauges stopping at 0 when machine was stopped, thus rendering leaks impossible at rest, and reducing them to a practical minimum when running. After several weeks of running, day and night, the machine was examined and the different parts working were found in perfect order, showing that there has not been any corrosive action of the liquid upon metals.

Owing to the small pressures, these machines are much simpler in their details of construction; all complicated valves, cocks, or other mechanical contrivances required for others can be dispensed with, three ordinary globe valves, such as are used for steam, being all that is necessary. Their attendance is easy, as it can be ascertained from parties who have them in use in breweries.

The machine working at C. H. Delamater & Co. since April, has been making 6 tons daily of solid, merchantable ice, which was readily disposed of in the market as fast as made, at prices leaving a large margin for profits. This machine, which is still in full operation, is open to the examination of the public.

The New York Ice Machine Co. (Room 54, Coal and Iron Exchange Building), which has bought the rights to the patents of Messrs. C. Tessié du Motay and Aug. I. Rossi for the United States, have one of these machines working successfully at Ph. Schaefer's Brewery, 59th street and 10th avenue, where it gives entire satisfaction. The proprietors consider it a "simple, practical, easily attended machine," doing all it was guaranteed to do. It cools the cellars of said brewery, keeping them at 40° Fah.

Several other machines are either in course of construction or being put up at other breweries or for making ice in and outside of this city.

Another machine which is completed now and will be ready to work at Hotel Vendome, in Boston, Mass., as soon as this hotel will be opened to the public, will have to cool provision rooms, wine rooms, cellars, making besides half a ton of ice for consumption and 200 carafes daily.

Hose Pipe Nozzles.

Who is going to invent the nozzle of the future? There is no nozzle that we have ever seen that seems to us to control the stream it delivers as it should do. Instead of projecting a solid stream for a long distance, the water breaks soon after leaving the nozzle, and soon sprays and breaks up altogether. We often hear of steamers throwing 250 and 300 feet, but we recently heard a veteran chief say that he had yet to see the apparatus of any kind that would throw a solid stream 100 feet. The difficulty may be all with the water, which is naturally inclined to separate, but we are of the opinion that part of the trouble lies in the construction of the nozzle. An experiment made at Boston by putting a core into a play pipe, and thus dividing the stream into four parts, depriving it of its rotary motion, showed a gain of thirty feet in distance playing. But even this does not seem sufficient. Our steamers give us power enough for throwing, and the hose in use gives every facility for carrying a large volume of water; there should be some means devised for delivering that volume in a solid stream at long distances. Great difficulty has been found in making nozzles operate uniformly at all times. A manufacturer of steamers once found a nozzle that gave him great satisfaction; with it his steamers could throw greater distances than with any he had ever tried before. He ordered half a dozen just like it. The half a dozen were made precisely like the first, but never equaled it in delivering water. There is much to be learned yet regarding this question of delivering water on fires, and the exact relations existing between pressure, hose, play pipes, nozzles, and the friction of water more clearly understood.—*Fireman's Journal.*

Dried Potatoes in California.

A California inventor has made a machine for pressing and drying potatoes so that they will keep for years, yet preserve their natural flavor. No chemicals are used in the operation of curing, everything being done by a simple machine capable of pressing six hundred bushels of potatoes in twenty-four hours. The machine not only presses the potatoes, but lays them on a tray in a concave form with the hollow side down. After the pressure they are put into a drying apparatus, where they remain for two hours, then they are ground into coarse meal resembling cracked rice.

The first shipment of these preserved potatoes to Liverpool, last year, brought a large profit. The average price of potatoes in San Francisco is about twenty-five cents a bushel. Dried, they brought in England forty-five shillings a hundredweight, or at the rate of a dollar and a half a bushel for green potatoes. This year preparation has been made for drying and shipping large quantities. It is said that there are three hundred thousand acres of uncultivated land on the western slope of the Coast Range, near San Francisco, especially adapted to potato growing. The fogs and mists from the ocean supply sufficient moisture, and the soil yields bountifully. The only problem heretofore has been where to market the product.

MECHANICAL INVENTIONS.

Mr. August P. J. Bossel, of Virginia City, Nev, has patented an improvement in bench planes which consists, first, in a novel construction, arrangement, and combination, with the plane bit, of a toothed plate or rack, and a pinion for adjusting the bit, and a wedge for holding it when adjusted; and also in a novel arrangement of the handle of the plane and devices connected therewith for adjusting said handle at different positions.

An improved baling press has been patented by Mr. John Grizzel, of Augusta, Ark. The object of this invention is to furnish presses for baling cotton and other materials, so constructed as to compress the material very quickly, and which can be conveniently and easily operated. The invention cannot be readily described without engravings.

Mr. George W. McArthur, of Laingsburg, Mich., has patented a machine for cutting hoops from poles, which is so constructed as to adjust the knife automatically to the bends of the pole and cut the hoops of uniform thickness.

An elevated scale beam for head blocks has been patented by Mr. John A. Reynolds, of Danville, Penn. The object of this invention is to provide the head block of a saw-mill with an elevated scale beam that may be at all times plainly visible, and upon which may be boldly marked the scale measurements, so that the mill operative may at a glance ascertain the thickness of the log upon the head block and readily adjust the log relatively to the saw in order to cut from it any required thickness of material.

The Blanket Brigade.

While in Boston attending the great celebration, Chief Leshure had a fine opportunity of seeing the working of the blanket brigade of that city, as applied to a fire in an elegant Park-street club house. The furniture, which was of the most costly description, was gathered together in the center of each room and covered with the carpets as they were stripped from the floor, and then the mammoth rubber blankets were spread over the whole, before the streams from six different hose pipes were let on the burning roof. The whole building was of course deluged, so that the water ran down the stairways in rivulets, but owing to the protection of the blankets, the percentage of loss on the furniture was comparatively small. Mr. Leshure came back more enthusiastic than ever concerning the organization of a Springfield blanket brigade.—*Springfield Republican.*

Ocean Temperatures in the Pacific and Atlantic.

Herr von Boguslawski has been led, from a comparison of the results of recent deep sea investigations, to the following conclusions respecting the temperatures of the Atlantic and Pacific oceans: 1. The water of the North Pacific is, in its whole mass, colder than that of the North Atlantic. 2. The water of the South Pacific is, down to 1,300 meters (4,225 feet), somewhat warmer than that of the Atlantic, but below the depth colder. 3. The bottom temperatures are generally lower in the Pacific than the Atlantic at the same depths and in the same degree of latitude; but nowhere in the Pacific are found such low bottom temperatures as in the Antarctic portion of the South Atlantic, between 36° and 38° south and 48° and 33° west longitude, in which bottom temperatures of —0·3° C. to —0·6° C. have been measured. 4. In the western parts of the Pacific, and the adjoining parts of the East Indian Archipelago, the temperature of the water reaches its minimum at depths between 550 and 2,750 meters (1,787 and 8,937 feet) remaining the same from this depth to the bottom. In the whole of the Atlantic the temperature from 2,750 meters (8,937 feet) to the bottom gradually though very slowly decreases.

A REMARKABLE instance of lightning ascending vertically is reported to the French Academy of Sciences as having occurred last month at Paris. M. Trecul relates that during a violent storm just at nightfall of the 19th ult., he saw flashes rising vertically, and apparently starting from the tips of lighting rods, though he is not sure that they started from them. The flashes went out in a kind of luminous ball, diminishing in the intensity of the light from the center toward the circumference. One of the smallest of these had an oval shape of from 8 to 10 inches in width, terminating the column of fire. On two occasions two of these luminous columns, having risen at a distance apart about equal to the space between two lightning rods, suddenly darted toward each other at right angles to their vertical course and went out on uniting, making no flash and no noise.