

15th. Lightning, thunder and rain on 15th, 19th, 27th. Strawberries on 22nd. Storms of wind 4th, 18th, 28th. Fogs on 15th, 21st dense. Rain on 2nd, 3rd, 6th, 7th, 12th, 14th, 15th, 18th, 19th very heavy storm with rain, 22nd, 27th. Vegetation at first very late, but showers abundant and vegetation afterward very rapid; crops good; grass unusually heavy. Health generally good except among children.

PATERBOROUGH.—On 6th, a rocket-like meteor observed crossing southern part of zenith from SE to W, leaving a trail which lasted about five seconds. Lightning on 6th in W horizon from 9.27 p.m. till 11.15 p.m. 12th, lightning. 25th, lightning in SSW horizon from 9.47 p.m. till 10.50 p.m. 27th, lightning. Lightning (forked) with thunder at 7.12 p.m., on 14th. Lightning and thunder on 18th. On 22nd and 24th, faint auroral light with a few slender streamers—the streamers each night disappearing in about 15 minutes. Rain on 2nd, 3rd, 12th, 14th, 15th, 18th, 20th, 26th.

STAFFORD.—Abstract of entries in regard to the storms of June 2nd: 1st storm—at 2.40 p.m. thunder, sky 0 with cu piled in masses and nim in N and S; at 3.15 p.m. rain; wind N, velocity 7; thunder loud and lightning vivid; from 3.20 p.m. to 3.42 p.m. hail very heavy and stones large; at 3.45 p.m. lightning vivid; wind SE, velocity 4; at 4 p.m. lightning and thunder ceased, wind S 2; at 4.40 p.m. rain ceased, depth .8911 in.; thunder in NW, wind SW velocity 3: 2nd storm—at 5.25 p.m. distant thunder in NW, sky clear; nimbi strati and cumuli form, wind NE, 3; at 6 p.m. thunder in continuous peals; this storm passed off to the eastward with a good deal of thunder and lightning; rain from 6.40 to 7.20 p.m. 6th, lightning in NH at 8.30 p.m. 7th, a very severe storm of thunder, lightning, hail, rain and wind from 2.40 to 4.40 p.m.; very brilliant and perfect primary and secondary rainbows at 7.25 p.m. 12th, lightning, thunder and rain. 13th, lightning at 8.30 p.m.; imperfect lunar halo at 9 p.m. 14th, thunder and lightning at 1.30, 5.30 and 9 p.m. with rain. 17th thunder, lightning and rain from 7 to 10.30 p.m. Thunder and lightning 25th and 27th. Fogs, 1st, 13th, 26th. Lightning 30th. Rain on 2nd, 3rd, 7th, 11th, 12th, 17th, 26th, 27th.

WINDSOR.—On 6th, heavy hail storm, lasting an hour and a half and covering the ground with hail stones, some of which measured two inches in circumference; wind exceedingly variable during the storm, shifting from S to N, and from N to NE, to SE, to S and to SW; barometer fell slightly during the progress of the storm. Rainbows on 6th and 12th, though on the latter of these days no rain fell here. Lightning and thunder with rain 17th. Lightning with thunder on 12th, 13th, 26th. Rain on 1st, 2nd, 6th, 11th, 17th, 24th. Barometer remarkably steady during the month, and no large ranges. Thermometer shows an unusually high temperature during the month.

None of the observers report frost during this June.

ST. JOHN, NEW BRUNSWICK.—We extract the following form a report sent by an observer at this point:—For the month of June the corrected mean readings of *Barometer* were at 8 a.m. 30.036, at 2 p.m. 30.016, at 10 p.m. 30.013, means 30.022. Highest, 30.242 on 11th, lowest, 29.564 on 4th and 30th; range .678. *Temperature*: mean at 6 a.m. 50°.97, 10 a.m. 58°.61, 2 p.m. 62°.17, 6 p.m. 59°.37, 10 p.m. 55°.33. Highest, 72° on 17th, and 27th, lowest 43° on 10th; range 29°. Greatest daily range 12°, on 9th and 27th. Least daily range 1°. Warmest day 17th, mean 62°.3; coldest 10th, mean 50°. *Tension of vapour*, mean at 8 a.m. .344, 2 p.m. .383, 10 p.m. .356; mean .356. *Humidity*, mean at 8 a.m. 85, 2 p.m. 78, 10 p.m. 88; mean 79. *Wind*, E to SW 26 days, and N to NE 4 days. *Rain*, 5 days and 7 nights, total fall 3.445.

2. COMETS AND SHOOTING STARS.

A curious theory on the "Probable connection of Comets with Shooting Stars" is explained by Mr. W. T. Lynn in the *Intellectual Observer*. It seems that the November shower of meteors moves round the sun in an orbit almost identical with that of a comet observed in 1866, that the August meteors follow the track of a comet seen in 1862, and the April meteors that of another observed in New York in 1861. Can it be that the comets partially shed their tails on their road, leaving their orbits more or less completely traced out in a ring of fiery dust? That, at any rate, is the first notion which these facts, if thoroughly established, would suggest.—*London Guardian*.

IV. Papers on Scientific subjects.

1. THE CANDLE FISH.

Mr. John Lord, an Englishman, who went to British Columbia as scientific member of the commission appointed to mark the boundary line between British and United States territory, has published in London an account of his travels, in a volume entitled "The Naturalist in Vancouver Island and British Columbia." Among his stories is the following account of an extraordinary fish:—

"I have never seen any fish half as fat and as good for Arctic winter food as the little candle fish. It is next to impossible to broil or fry them, for they melt completely into oil. Some idea of their marvellous fatness may be gleaned from the fact that the natives use them as lamps for lighting their lodges. The fish, when dried, has a piece of rush-pith, or strip from the inner bark of the

cypress tree (*Thuja gigantea*), drawn through it, a long round needle made of hard wood being used for the purpose; it is then lighted and burns steadily until consumed. I have read comfortably by its light; the candlestick—literally a stick for the candle—consists of a bit of wood split at one end, with the fish inserted in the cleft. These ready-made sea-candles—little dips wanting only a wick that can be added in a minute—are easily transformed by heat and pressure into liquid. When the Indian drinks instead of burning them, he gets a fuel in the shape of oil, that keeps up the combustion within him, and which is burned and consumed in the lungs, just as it was by the wick, but only gives heat. It is by no mere chance that myriads of small fish, in obedience to a wondrous instinct, annually visit the northern seas, containing within themselves all the elements necessary for supplying light, heat, and life to the poor savage, who, but for this, must perish in the bitter cold of the long dreary winter.

"As soon as the Indians have stored away the full supply of food for the winter, all the fish subsequently taken are converted into oil. If we stroll down to the lodgings near the beach, we shall see for ourselves how they manage it. The fish reserved for oil making have been piled in heaps until partially decomposed; five or six fires are blazing away, and in each fire are a number of large round pebbles to be made very hot. By each fire are four large square boxes, made of the trunk of the pine tree. A squaw carefully piles in each box a layer of fish about three deep, and covers them with cold water. She then puts five or six of the hot stone upon the layers of fish, and when the steam has cleared away, carefully lays small pieces of wood over the stones; then more fish, more water, more stones, more layers of wood, and so on until the box is filled. The oil-maker now takes all the liquid from this box, and uses it over again instead of water in filling another box, and skims the oil off as it floats on the surface. A vast quantity of oil is thus obtained; often as much as seven hundred weight will be made by one small tribe.

"The refuse of the fish are not yet done with, more oil being extractable from them. Built against the pine tree is a small stage made of poles, very like a monster gridiron. The refuse of the boxes, having been sewn up in porous mats, is placed on the stage, to be rolled and pressed by the arms and chests of Indian women; and the oil thus squeezed out is collected in a box placed underneath. Not only has nature, ever bountiful, sent an abundance of oil to the redskin, but she actually provides ready-made bottles to store it away in. The great seawrack, that grows to an immense size in those northern seas, and forms submarine forests, has a hollow stalk, expanded into a complete flask at the root end. Out into lengths of about three feet, these hollow stalks, with the bulb at the end, are collected and kept wet until required for use. As the oil is obtained it is stored away in these natural quart bottles, or rather larger bottles, for some of them hold three pints."

2. AMBER.

This word is derived from the Arabic. The well-known substance so called is a fossilized resin of certain unknown coniferous trees, of the fir or pine genus. Great virtues were attributed to it by the ancients. Pliny tells us that Sophocles held amber to be the petrified tears which the birds of Meleager dropped to the memory of that great hero of mythology. Amber has been among the moderns a subject of great discussion. The mystery in which it was involved was increased by the circumstance that Hebrew and Arabic characters were often found engraved upon it, in a perfectly legible state. Dr. Thomas, of Koenigsberg, has given us the explanation of this singular fact by stating that the pieces of amber so engraved were neither more nor less than seals. Many of them are preserved in the Museum of Portici, but chiefly brought thither from Herculaneum. It is certainly astonishing that, having invented seals, the Romans should not have followed up the idea, and invented some sort of painting process for their writing. Never was there a broader hint given to man, and yet it took a thousand years to bridge over the gulf which lies between two seals and moveable types. The largest known deposit of amber lies on the Prussian coast of the Baltic; it is found in a bed of lignite, which is supposed to extend far under the sea. Another deposit of amber lies almost horizontally on the outskirts of Dirschheim, at a depth of only four feet from the surface. Pieces of amber are often found lying on the coast after a storm: thus, on the first of January, 1848, upwards of 400 kilos of this substance were thrown out of the sea within a very small space. Amber has been known from the highest antiquity, and important medical properties were attributed to it; even now it maintains its place in our pharmacopœias, together with the oil distilled from it, as a stimulant, an astringent, and an antispasmodic. Amber necklaces have been found in Celtic tombs both in England and Brittany. Regnard tells us that in his time the Margrave of Brandenburg presented the Emperor of Russia with an