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The Northwest Magazine.

THE YELLOWSTONE NATIONAL PARK.

Its Antiquities and Its Wonders.

To the archeologist seeking for natural antiquities, Yellowstone Park has no competitor on our planet.

The "Infant Cones" at Mammoth Hot Springs were at work when Columbus was laboring to convince the savants of Europe that a new world lay undiscovered amid the wild waste of the Atlantic! The "Orange Geyser Cone," now twenty feet high, had begun to build its beautiful golden walls, with its millions of microscopic cups, fit to hold the silvery dew drops to grace the nuptials of a fairy queen, before the Divine Republic of Plato had been written, and before the first stone had been laid in founding the Eternal City!

"Liberty Cap" has withstood the storms of fifty-six centuries. It has survived the rise and fall of great empires. Human-like faces are seen on all sides of this monument of antiquity, and inspired the song of "The Sphinx," on another page of this issue.

Over sixty similar pillars once stood on the hotel plateau all of which dug their own graves and are now buried amid the ruins of terraces as beautiful as those now consecrated to Minerva, Jupiter and Hymen. Liberty Cap is older than Cleopatra's Needle, or the Pyramids, or Solomon's Temple. All these vertical cones at Mammoth Hot Springs were slowly built at the rate of eleven inches to the century. The circular terraces around and created by them are as transient, as they are beautiful; but to realize the immensity of time as of space one has to stand beside "Pluto's Chimney," now about ten feet high, situated in the Monument Geyser Basin, on the top of Mount Shurtz, where it has been puffing atomised vapor for 28,000 years, a time long anterior to the period when the creative fiat is supposed to have first launched our planet on its eternal journey round the sun. The "Forge" and the "Invisible Trip Hammer" in the same basin, have been grinding and tunneling, and boiling the rocks into paint for thousands of years.

To the artist and poet, Yellowstone Park is at once

a museum, a picture gallery and a romance! No colorist, not even Titian, could do justice to the brilliancy and marvelous blending of colors that are seen on the terraces of the Seraph Geyser, or that of Paradise Lake or the Chain Lakes, or the Black Sand

though they have "held the mirror up to nature" their best copies are as but shadow to substance, the dead body of a Cleopatra to the living embodiment of all the graces that charmed and conquered the conqueror. They must be seen even before one can either

comprehend or appreciate the works of our best masters of which Thomas Moran is unquestionably the greatest.

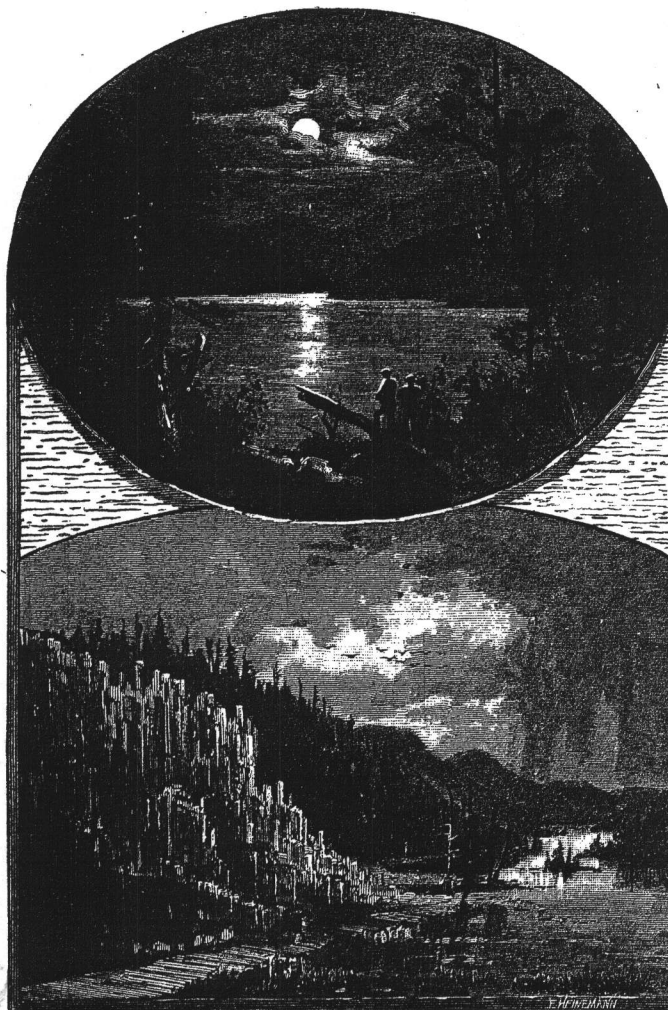
The gas-aqueous geysers are beyond the reach of photographers and painters.

The Ruby is that "gem of purest ray serene," whose loveliness and beauty is as changeable as the chameleon, and as brilliant as the prismatic reflex of a star. Ladies have reached forth their hands to pluck it up and plant it in their hair. Gentlemen would fain have placed it on their bosoms as a jewel which no lapidary could fashion or even imitate, compared with it, all artificial products are but counterfeits.

The "Evangeline" is a divine poem, or at least a perfect stanza in a volume of which each verse attains the absolute perfection of divine art. There are in it two hearts. The outer one is encircled with a silicated rim of the most perfect and complicated convolutions—the inner heart has depth and warmth and purity and power such as the poet ascribes to woman when most exalted by those human qualities that make her the object of adoration as sister, lover and mother of men and gods.

Within the inner heart, after five minutes of repose, during which the crystal waters drop like the eyelids of a sleeping goddess, then there is an awakening as if out of a dream. The hearts fill up to overflowing. With a quiver and a sigh she awakes. The rustle of her night robe scatters gems like star dust in the Milky way. She seems to laugh as she tosses her jewels upward with the lavishness of one whose stores are inexhaustible. A very spendthrift as in love, where the more that is given the more there is to bestow.

At first these sparkling jewels are but microscopic specks rising in symmetrical columns, or in graceful curves like the tail feathers of a bird of paradise. Again they assume the aspect of large, brilliant rubies, or bluish globes dipped in carnation hues and bursting into flames of brilliant pink and



LAKE OF THE WOODS AND OBSIDIAN CLIFFS, YELLOWSTONE NATIONAL PARK.

Basin, or the Minerva Terraces, or Roth Terraces, or the walls of the Grand Canyon. Thomas Moran and the two Browns, our American and an English artist of the same name, have made splendid copies of the canyon and some of the other subjects named, but

vermillion as they explode in the sun. As you stand on the outer margin, or on one of the islets in the outer heart you become aware of a tremulous motion terminating in a slight concussion. These increase in frequency and force until you become convinced that beneath your feet there is a throbbing heart. There are deep drawn sighs terminating in a convulsive sob. Is it Evangeline agonizing over her lost lover? Are you actually treading on a bleeding heart? Looking to the south side of the crater there is a crimson current oozing away from the river. The illusion is complete. It is the bleeding heart of "Evangeline." There is perhaps nothing in all the Yellowstone Park to compare with this unique and marvelous exhibition of all the graces and all the motions that are most distinctly human.

There are in "Paranasus Basin" other springs, such as the "Raven," the outline of which suggested the name; "Fritchle's Well," "The Queen's Necklace," "The Star Spangled Banner" and "Hiawatha;" but as I am writing a chapter and not a book, the "Ruby" and "Evangeline" have been chosen as the most remarkable of the Paranasus group.

"The Seraph" is situated in the Lower Geyser Basin, near the Mammoth Geyser, and is one of the most beautiful of the gaseous variety. Its action is incessant but variable. Every few seconds there arises great globes that seem to revolve like chariot wheels as they rise toward the surface. Then they come faster and faster until they seem to glide into each other and rise into one magnificent dome of liquid splendor upon which the sunlight is reflected with a glory of coloring that equals the rainbow's prismatic hues. This magical upheaval caused by superheated gaseous globes injected into each other, seems like the creation of an invisible artist, who, during the climax of the upheaval spreads Seraphic wings, all else being invisible, and thus uplifts the dome, folds its wings and vanishes beneath the torrid waves concealing the agency that astonishes and bewilders us.

The terraces are even more wonderful in their static beauty of fanciful figures, hands white as marble, cogs and wheels involved, convoluted and complicated, the very perfection of art. Over sixty yards from the geyser the boiling water spreads over considerable surface forming a second terrace and painting the walls of Seraph Creek in colors so brilliant and dazzling that you are compelled to close your eyes until you become accustomed gradually to look upon these Seraphic walls. The sculptor who could copy the cornice work around the Seraph, and the painter who could put the walls of Seraph Creek on canvas could present to the world

two of the most marvelous subjects from Wonderland. We cannot omit some notice of the "Silver Globe Basin," situated between the mid-way and Upper Geyser Basin, and on the west side of the Fire Hole River. "Sapphire Springs," being the largest and first reached on crossing the stream, is remarkable on account of the extraordinary and infinite variety of the silican processes that ornament its terraces. On the west side there is a perfectly formed serpent, extending for over twenty feet forming a serpentine rim or margin. Back of the serpent there are numerous smaller serpentine curves, and in each fold there are

flaming colors in scarlet and gold, extending over a hundred yards, until swallowed up in the Firehole River.

This lake, for it is more than a spring, is over 155 feet in circumference; its depth is not known, but its sapphire walls, with an occasional alabaster vein can be seen through the crystal water for many fathoms. Taking a cane or a piece of pine and thrusting it into this caldron an active effervescence begins, and by passing it around the edge, the whole lake is thus set in active ebullition, like the witches "Charmed Pot," in Macbeth:

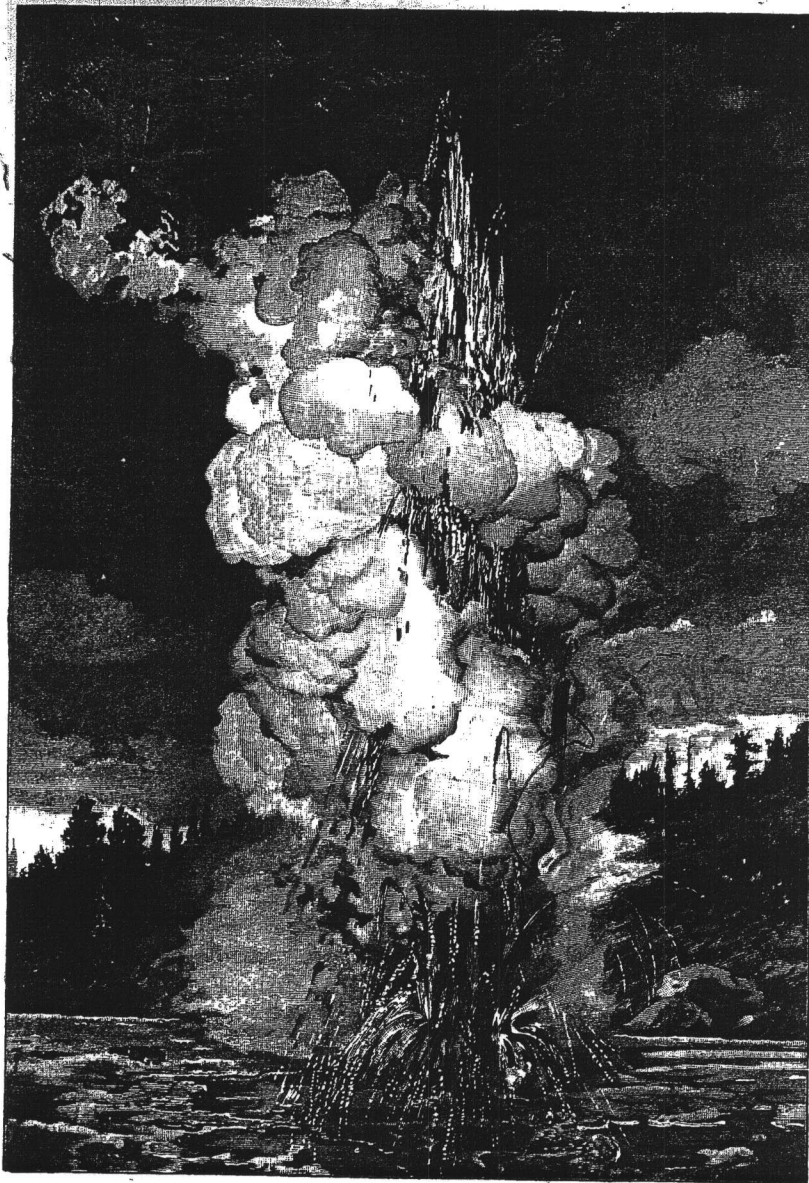
"Double, double, toil and trouble
Fire burn; and caldron bubble."

The "Pearl Geyser" has an aqueous eruption of over thirty feet every five minutes. The terrace on the west side has a dark, inky hue covered with millions of small brown processes, that, at first sight, has the appearance of a swarm of bees. Upon closer inspection they are found to be a perfect circle of from one-eighth to three fourths of an inch in circumference at the base, and terminating in a small, beautiful pearl at the top. These may be examined with safety between eruptions, having a care that you are not caught and scalded by the next eruption, as it gives no preliminary warning. The writer has been twice deluged, and once severely scalded on the shoulders, having only shirt sleeves to protect him from the drops that fall like hot shot and will penetrate easily two thicknesses of linen.

A few yards further west is the "Sea Shell Geyser," having some of the same peculiarities as its mother of pearl sister. The geyser and terraces are much smaller and the eruptions less frequent. The margin of the pool or crater is buttressed by what seems great turtles creeping out of the hot water, on the back of which are myriads of bivalvular shells. On closer inspection, what seemed a turtle, has more the appearance of what in cauchology is known as the *Terebratula*, and of mammoth dimensions with myriads of bivalvular parasites subsisting upon and clinging to them. The great resemblance to mammoth and turtle shells established the name in preference to that of Little Geyser.

The "Silver Globe Geyser" from which the basin derives its name is west of the "Sea Shell" and is so remarkable, dynamically considered, as to take the first rank among the marvels of the basin, and is only surpassed by the Evangeline, on account of the greater variety of her modes of action and the beauty of her terraces.

The "Silver Globe" has no terrace of solid silican such as those already named. There is a silican arch at the north end under which the main crater is



NEAR VIEW OF GEYSER IN ACTION, YELLOWSTONE NATIONAL PARK.
From an instantaneous photo by F. Jay Haynes.

what seems to be loaves of bread, mostly circular, and all piping hot; for the boiling water from Sapphire Springs makes periodical outflows that keeps the whole bakehouse and bread warm. As you go south of the serpent the large loaves degenerate into small biscuits, and finally into the most insignificant Boston crackers. Still farther south and east the cracker-like processes become sea-shells, packed most neatly into each other with the concave surfaces upward, so that we have on this terrace a "Bakery," a "Cracker factory" a "reptilian and cauchological museum," and on the east side a magnificent flag of

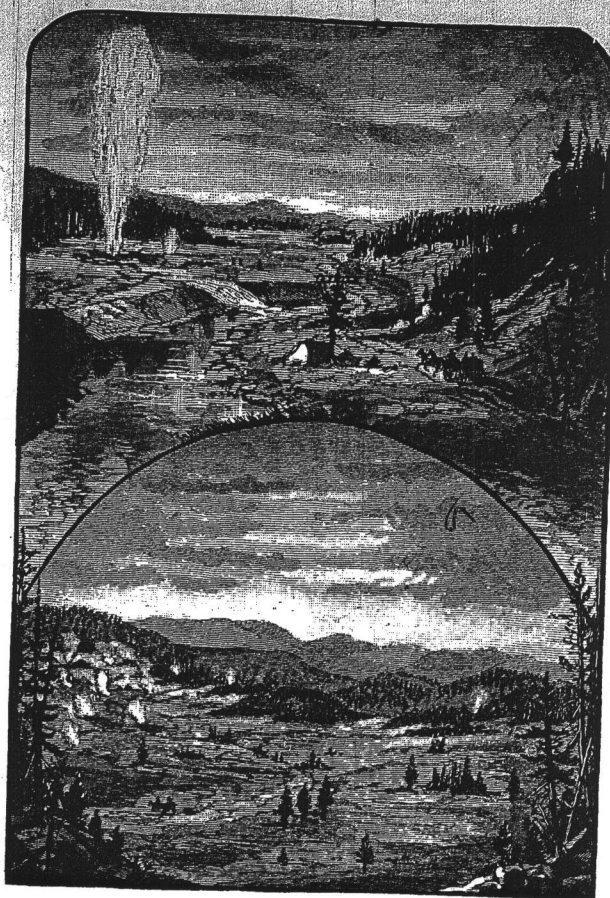
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to be found, named the "Zygomatic Arch." Under this bridge the gasses ascend in the form of globes similar to the largest sized silver watches. The arch obscures the view and the walls intercept many of the globes, breaking them before they reach the surface. The open pool south of the Zygomatic Arch was first discovered and has become the all-absorbing object of interest. The crater is funnel-shaped, and seems to be lined with yellow satin that deepens into pink and crimson at the outer edges. This static glory would make it an object of surpassing loveliness and interest were there nothing more, but at intervals of five, fifteen and twenty-five minutes there are eruptions of silvery globes, as if you were looking into a furnace where the invisible fairy smelters, in sheer wantonness throw at you the "dollar of our daddies," but too hot to handle and too beautiful to be real! but there they arise visible, intangible, one at a time, quivering like flashing stars, noiseless as a gleam of light, regular in their irregularity, as the planets in their sphere!

The impression is that the first and largest globe has been cast in a mould, and that the moulder had forced in too much of the precious molten fluid; that the overflow followed the parent globe in smaller drops, one at a time, and as perfect in every respect as their parent and progenitor. There is a positive enchantment, a glamour, a witchery about this geyser that is difficult to explain but impossible to escape. You have before you a silver mine; the globe rises through a golden wall; even the spillings would make you a millionaire.

After the longest period there arises two globes of the largest size but never more than one is seen at a time. It never hurries, and it makes no delay, silent as fate, but sure as death. To see this phenomenon repeated again; and again becomes a necessity, as with the gambler you hope to realize solid wealth out of this phantasmal display of bullion. You hope this spiritual globe of silver will materialise and that you can stretch forth your hand and grasp it, and while it is yet hot, stamp it with "In God we trust." "Oh, how beautiful!" "How unsubstantially real!" "How really unsubstantial!" "It comes like glory, and vanishes like a ghost!" "Like man here to-day, gone to-morrow!" "So it comes slowly, lingers a moment and is gone forever." "There are three or four times as many infant globes as there are matured, full-sized ones!" "So with me and mine there is but one assurance, the globe arises and vanishes, but other globes follow; eternal in their succession!" "In this, like men and all animated forms, each in turn gives place to a successor." "Why not retain their form?" "Why not remain in Statu quo?" "Then, why should they?" "They would crowd and jostle each other as men do."

The Silver Globe pool



EXCELSIOR GEYSER AND MIDDLE GEYSER BASIN, YELLOWSTONE NATIONAL PARK.

would soon become a battle field of mangled and fractured globes. "I am content!" "You are lovely just as you are. Come, oh ye jewels! one at a time, just as you are! Time and space permit you to be perfect in that you have time and space enough!" "Would you have it otherwise?" Then gaze beneath the Zygomatic Arch and behold our human world typi-

fied! See how the globes crowd each other in the shadow, crushed and bruised, and broken they come helter, skelter, struggling for space. Here and there one majestic globe reaches the surface, but in the ascent a thousand minor and weaker globes have perished. Under that shadowy arch, what chorus, what anarchy reigns! Perfection and imperfection, light and shadow, glory and shame! There is one perfect globe among 10,000 mutilated fragments! Mirth and misery, as it were, rioting in a too limited alembic.

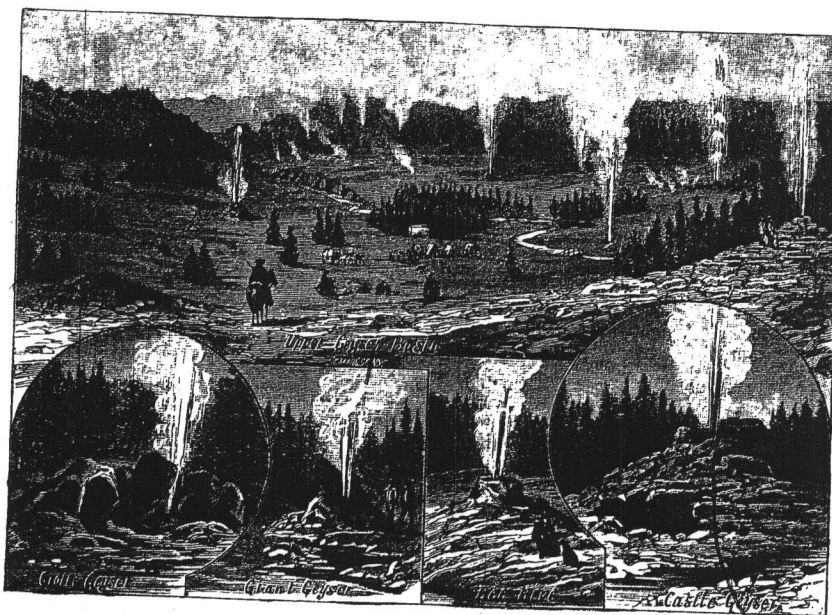
The best must be cruel in order to be! One thing is certain, the combined elements of time, ample; space, abundant; order, perfect; environment, lovely; are all found at the open pool of Silver Globe Geyser. Hence, its ineffable grace and never-failing attraction to all who have seen it.

"The Golden Bowl" is about twelve feet north of Silver Globe Geyser. It has no terrace, the walls are gorgeously tinted with blue and purple and yellow. Its action is of the same character as its neighbor's, having also two vortexes from out of which arise globes of paler hue but greater circumference. Many of these globes strike the wall and are broken before they reach the surface. At the other crater the globes are more tenacious and retain their forms after they reach the surface, assuming the form of a daisy which form they retain after floating down into the lower crater where they merge and become a daisy-like carpet, circling always in one direction. The central globule ultimately breaks up, by the pressure of those on the outer circles. It has not been watched as closely, nor has it been admired as much as its Silver Globe competitor.

The "Laocoon" is twelve yards north of the Golden Bowl. It is forty-two feet long by nine feet wide, and resembles a winged reptile. There are two effervescing points between which there is a huge coiled serpent-like formation, over and against which the seething torrent incessantly pours, and which suggested the name. West and north of the Laocoon

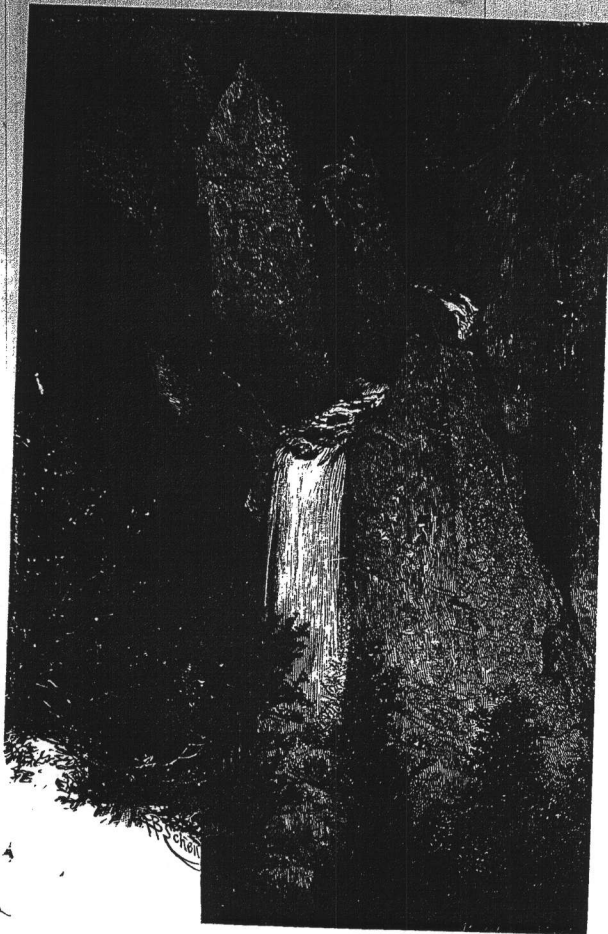
is one named the "Glacial Geyser." Its walls are blue, its globules are bluish, and its icy appearance and bluish color suggested the name. It is a most interesting geyser, and although seldom visited, and as yet, but little known, is well worth the study of one curious to know what variations there are among a group that constitutes a single family, each having some characteristic peculiarity to itself and yet common to all.

The "Maelstrom" is situated at the extreme north end of the basin, and on account of its comparative insignificance as to size and the quantity of water discharged (for it belongs to the "steam-aqueous family") it might be overlooked, in which case the visitor would miss a sight that is without parallel among all that is to be seen in the Silver Globe



A GLIMPSE OF THE UPPER GEYSER BASIN AND SOME OF THE GEYSERS, YELLOWSTONE NATIONAL PARK.

Basin or elsewhere. The eruption occurs about every two minutes, throwing the water, with a gurgling noise, about three feet above the crater. The crater is not over one and a half feet in depth, and has the appearance of a large egg-shell cut in two. At the bottom there are three elongated openings, the center one being nearly round, the other two being about three by four inches, and separated by a thin, egg-like crust of two inches in width. Just before eruptions the water rises to a level with these openings and slyly retreats as if surprised or ashamed to come farther. A second attempt; and it succeeds in filling the lower portion of the egg, and then falls back with a peculiar whirling motion as if frightened and in haste to get through these mouse-trap holes to its warm nest beyond the reach of inspection. After a pause of a few seconds it dashes up with great violence, filling the whole cavity, then bubbling upward above the walls it seems like a rose bush caught in a whirlwind, and if the sun shines, the outer margin breaking into great drops as in a summer shower, becomes a burning bush, for every drop seems to be a pink flame, or a multitude of small rainbows woven into golden strands of indescribable beauty. At the sudden rush of water, a stranger instinctively retreats not knowing how high or wide this brilliant coquette may throw her pretty jewels; but on returning you gather closer and behold she has woven her crystal hair in a three platted liquid braid like a Chinaman's queue, of silvery instead of raven hair. Oh! Oh!! Oh!!! Did you ever! and that is all: You have never been so surprised in all your life before. The "Maelstrom" is a water witch, a fairy: a magical weaver of rainbows, a pyromancer, a hydromancer, a florimancer, and yet you dare not take one lock of her silvery hair, nor pluck a flower, nor touch one of the jewels that she scatters as incense on her altar; hasten her coming or stop her going. She needs neither assistant nor soldier to protect her. Her egg is ever boiling, her three doors are ever open, but she alone enters.



TOWER FALLS, YELLOWSTONE NATIONAL PARK.

ters. She comes like a novice, performs like a trained artist, and vanishes like a gleam of moonlight. She commands your homage but heeds not your applause. A beautiful subject but a dangerous object!

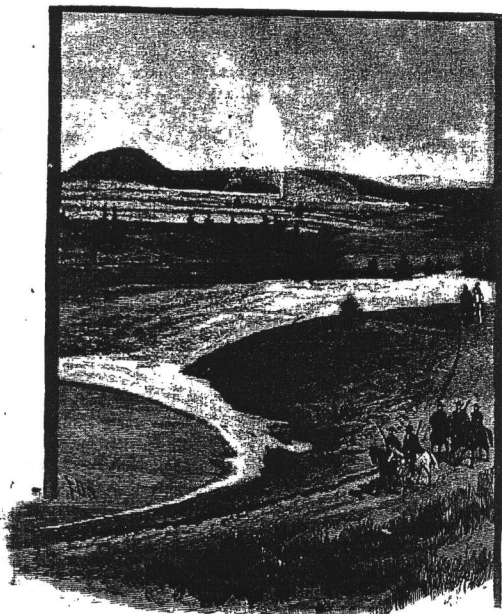
The "Mugwump" and the "Quaker" in the Upper

Geyser Basin are also gas-aqueous and so peculiar as to deserve some special notice. The first named is situated in one of the beautiful lakes named the "Four Sisters." It erupts every five minutes and continues in action about three. The gasses arise with such force as to lift the water in a fan-shaped globe, which explodes with a sharp noise like the crack of a whip. These are tossed out in every direction, with great rapidity, suggesting the explosion of Chinese crackers on a 4th of July. In 1884, just before election, a party was much entertained by this impetuous and irrepressible disturber of the otherwise peaceful, "Four Sisters." One lady remarked: "Well, I should say, that is the clown of the geysers;" "a magnificent kicker," said another: "a Mugwump, and no mistake," said a third, amid roars of laughter, and "Mugwump" it has remained ever since.

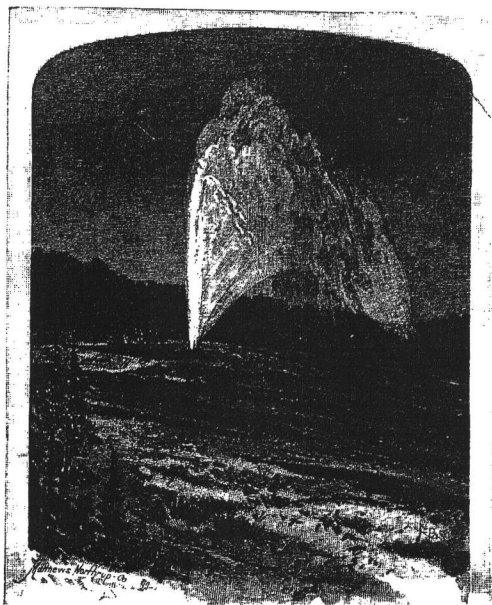
The Quaker is near the

"Beach" on the east side of the Firehole River, and not far from the Giantess Geyser. It was not known to have any special mode of action until the summer of 1886, when on stepping over at a narrow isthmus that almost cuts the geyser in two, I noticed that the ground on which I stood moved slowly up and down as if one were standing on the breast of a sleeping giant, whose breathing, with an occasional sigh or shiver, kept up the quaking motion that suggested the name. Stepping back to the solid terrace and stooping, one could see that a thin siliceous crust of two or three inches was all that stood between us and death. The seething caldron beneath was giving forth imprisoned gasses at both extremities, and caused the regular raising and lowering of the terrace as described. Many people have stood on this terrace at one time, and have felt this "sensible warm motion" and dangerous quaking, which with the addition of the "last feather" that would have broken this quaking terrace down, they would have gone into a boiling, bottomless abyss. I suggested to Asst. Superintendent Weimer, then in charge of the Upper Basin, that only a limited number be permitted to stand on the thin, laminated wall at one time, and that danger notices be posted up near the crossing to prevent any possible accident. The periods and duration of these eruptions are not known. The indications are that the boiling lake rises and falls, while discharging its superheated gasses, causing the rise and fall of the terrace on the east side, accompanied by a slight overflow at the end next the "Lyon Geyser."

All who have read about, or visited Yellowstone Park know about the great steam-aqueous geysers, such as "Old Faithful," the "Bee hive," the "Grand" and the "Splendid," in the Upper Geyser Basin, and the "Fountain," the "Mammoth," the "Black Warrior" and the "Venus" in the Lower Basin, also the "Vixen," the "Tiger," "Double Crater" and "Monarch" in Norris Basin, all of which have been or may be photographed. In these the water accumulates in



OLD FAITHFUL GEYSER, YELLOWSTONE NATIONAL PARK.



BEE HIVE GEYSER, YELLOWSTONE NATIONAL PARK.

subterranean chambers until the compressed steam forces the water upward, varying in height from three to 300 feet.

They are indeed very wonderful as exhibitions of the great forces of nature, and will ever be a great attraction. No two are exactly alike as to cone, crater or mode of action. But to the student, the thinker, the poet, the gas-aqueous geysers are by far the most interesting.

The spouting whale is an object of interest, no doubt, but as compared with man, the master spirit that rules the terrestrial globe; he who captures and conquers and subdues not only fish and fowl and beast, but even the elements, compelling them to serve him—is as much more interesting than the whale, as is the gas-aqueous, than the steam-aqueous geysers, which I have endeavored to describe mostly in this brief sketch of Wonderland.

G. L. HENDERSON.

LIBERTY CAP.

["Liberty Cap," in the Yellowstone National Park, is an extinct geyser cone, forty-seven feet high and 100 feet in circumference at the base. It looks like a silent sentinel guarding the gate of Wonderland; or like an ancient witness who could, if it would, reveal the sealed secrets of the past. It has more faces than Janus and more eyes than the fabled Argus. It is the first object that meets the eye at the foot of the Terraces of whom and for whom it lived and moved and had its being.]

Hail Sphinx of the Yellowstone, hail!
Queen of the Terraces, wrinkled and old,
Standing alone in the pitiless cold;
I pray thee, thy secrets unveil,
Oh! tell us the marvelous tale
Of Wonderland, at whose gate ye stand.

What meaneth thy faces of stone?
Why, one looking north one looking south,
Eastward and Westward? Each grimly shut mouth
Might speak and reveal the unknown
Of the years and centuries gone,
In Wonderland, at whose gate ye stand!

Ho! Wizzard why thy snow white hood?
Speak! Had ye children, and are they all dead?
Have ye a body supporting your head?
Is silence eternal, thy mood?
On the dead or dying ye brood?
In Wonderland, at whose gates ye stand!

Oh, bodiless, pitiful head!
Held by dread fate, to a terrible doom;
Breathing the air, but thy feet in the tomb;
One half living, and one half dead;
Fires below on thy substance fed,
In Wonderland, at whose gates ye stand!

Like mortal man from earth ye came,
And like mortal man, back to dust must go,
And thy tomb lies wide and deep below.
Begotten, ye, of flood and flame,
A sad misnomer is thy name,
As in Wonderland condemned ye stand.

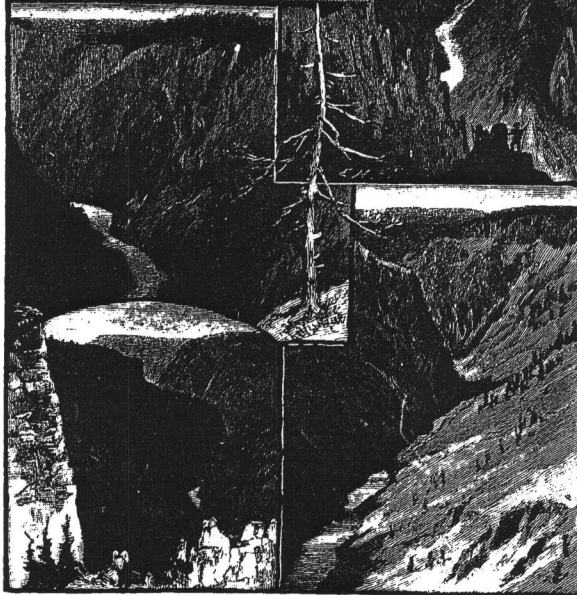
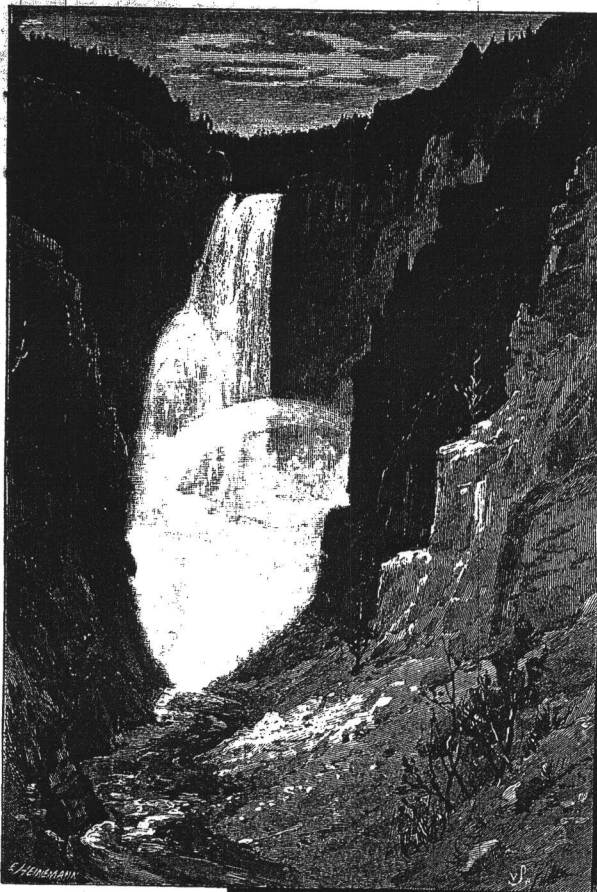
Ye mock my prayers! Dumb demon go!
Though thy centuries may outcount my years;
Though the Boiling River was once thy tears.
Ye nothing know, I care to know!
And yet, your faces perplex me so,
In Wonderland, at whose gate ye stand.

G. L. HENDERSON.

For The Northwest Magazine.

IN THE JUDITH BASIN.

A few years ago the now flourishing Territory of Montana was so little known, that to the people of



GREAT FALLS OF THE YELLOWSTONE AND VIEWS IN THE GRAND CANYON.

the United States, it was regarded simply as so much space and almost impassible barrier separating the rich alluvial soil of the Pacific slope from the fertile bottoms of the Mississippi and its tributaries. In the year 1850, when a bill was first introduced before

Congress to connect the Atlantic and Pacific by rail, Thomas H. Benton advocated building the road through what is now Montana, in preference to the proposed route now occupied by the Central and Union Pacific, remarking that the buffalo were the most reliable engineers for determining the most feasible route, as they always leave the plains of Nebraska and Colorado and go north for the winter. It has since been foreseen that his conclusions, then a subject of ridicule, were founded on sound logic.

In 1857 there were only known to be thirty white men in what is now the Territory of Montana. In 1862 gold was discovered in Beaverhead County, and in 1863 Alder Gulch was discovered and the famous stampede began which first brought Montana into notice, and was the beginning of that tide of emigration which has ever since been flowing into its borders. Eastern Montana, then comparatively unknown, is now acknowledged to be the finest grazing country in the Northwest, while its mineral and agricultural resources are second to no other part of the Territory. Surpassing all the rest of Eastern Montana in natural resources is the newly formed County of Fergus. It lies south of the Missouri River, east of the Little Belt and Highwood Mountains, and west and north of the Musselshell River. The garden spot of this county is the Judith Basin, embracing the western half of it, and offering an inviting field to energetic people of all occupations—the farmer, stockman, miner, manufacturer and merchant. It is rich in mineral, agricultural and grazing resources, its plains are covered with nutritious grasses, its fertile meadow and bottom

lands yielding abundant return to the husbandman. Its numerous streams furnish abundant water for stock and manufacturing purposes as well. Like all other sections of the country, the Judith was first brought into notice through mining excitements. Previous to 1879 the country was the favorite hunting ground of Crow, Gros Vents, Piegan, Blood, Black Feet and Sioux Indians, who came here in pursuit of the countless kinds of buffalo and other game. Occasionally a few honest (?) traders bartered with the simple Aborigines in fair exchange! gave whiskey and beads for skins and horses, taking the precaution always to remove the plunder and their own skins before the exhilarating effect of the fire water had entirely died away.

The first settlers were those who came in during the mining excitement and seeing the great possibilities of the country, decided to make their homes here. They suffered great hardship for the first year, having to watch their stock closely, and often having it stolen, not always by Indians, as there were oftentimes whites in league with them. At that time, Fort Benton, fifty miles north of the basin, at the head of navigation on the Missouri, and Coulson, a mile and a half from the now flourishing city of Billings, on the Northern Pacific Railroad, the head of navigation on the Yellowstone, 250 miles apart, were not in communication; while now they are connected

by a daily stage which passed through several flourishing villages, the most prominent of which is Philbrook, prettily situated on the Judith River. It has two church organizations, a fine school, and the only bridge across the river, which with its central location, brings a good deal of travel to the place, and doubtless, at no distant day will be a place of some importance. The increase in population has been very rapid, considering there is no line of railroad yet in the basin. There were but a handful of settlers here in 1880 and at the last November election there were about 800 votes cast by permanent settlers, a sure indication of the appreciation in which the country is held.

This seems to be a railroad-building era, and without doubt many miles of road will be built in Montana before the year closes. The Manitoba Company is vigorously pushing its Devil's Lake extension westward with Helena as its objective point, and will undoubtedly touch the head of navigation of the Missouri at some point at or near Fort Benton. Should this road be constructed, it will be much the nearest one to the basin and its natural outlet, unless the Northern Pacific builds its branch from Billings to the Bull Mountain coal fields and so on into the basin, as we are informed they contemplate doing at no distant day, having made a preliminary survey.

E. J. M.

For The Northwest Magazine.

CYCLONES AND BLIZZARDS.

The term cyclone as applied to the inland tornadoes of the United States is entirely incorrect. Cyclones originate within the tropics, but never on the equator. They are circular storms of vast extent and of long continuance. The West Indian hurricane, which is of cyclonic origin, sometimes spreads till it covers half the surface of the North Atlantic Ocean before it entirely exhausts itself. The tornado is a traveling whirlwind of narrow breadth and short duration. Leave the cyclone to its proper clime; the tornado is sufficient for us.

While the tornado is not unknown in Minnesota and Dakota, it is not as common in the Northwest as further south.

Tornadoes are neither new nor increasing in number. The first one recorded is described as follows: "There came a great wind from the wilderness, and smote the four corners of the house, and it fell upon the young men, and they are dead."

The blizzard belongs to the great northwestern prairies, and is unknown east of the Big Woods of Minnesota. There never has been a blizzard in the vicinity of St. Paul. Leave the blizzard also in its proper home. Even there blizzards are not very common. There has been no real blizzard in Minnesota or Dakota for several winters past.

When the great prairies of Dakota are all under cultivation, and belts of timber surround every farm, and trees border all the roads, blizzards will be unknown.

J. W. BOXELL.

FREE LANDS GOING FAST.

Every train brings in a lot of new settlers, who don't let the grass grow under their feet to any great extent while making a rush to get some of the virgin dirt lying around loose in this vicinity. And their haste and anxiety is commendable, for the time is rapidly approaching when free lands for the homeless will not be had for the taking. It will not be long till lands now selling for from \$300 to \$500 a quarter will be scarce and hard to get at from \$1,500 to \$2,500. Many an old-timer who came to Dakota eight to ten years ago can look back at the golden opportunities he has lost, in not taking land at Government price, now worth in some cases, as much for an acre as a quarter section was then worth. Such experience will be the experience of others, who neglect to take advantage of the present low prices for land. Low prices may prevail for a time, but a rise will surely come in the future. So catch on now.—Bovdle Pioneer

For The Northwest Magazine.

PIONEER LIFE IN WASHINGTON TERRITORY.

I.

Taking Up a Ranch.

"Tis easier to bear the ills we have
Than fly to others that we know not of."

This little poetic aphorism sounds very well in theory, but will not work smoothly in practical experience. Everybody knows how easy it is to imagine that one's present lot and surroundings are quite intolerable, and that any change can only be for the better. If the pioneer citizens of this western country had not preferred to risk the unknown ills to the galling ones they already endured, our enlightened and prosperous Inland Empire would still be a savage wilderness, and her population of enterprising and aggressive young farmers, tradesmen and mechanics, would still be struggling in the over-crowded ranks of their competitors in older states.

As long as the ambitious youth and aspiring maiden have the shelter of the comfortable parental home, and the assistance of opulent and influential friends in every crisis, there is little incentive to ambition, beyond the fiction of "paying their way," and living within their income: knowing that if they fail in either, Providence, in the guise of some sympathetic relative, will come to the rescue. But, suppose the family grows too numerous and expensive for the paternal income; suppose the elder children marry and receive liberal assistance, and afterward, death and financial disaster leave the others homeless and portionless; suppose any of the countless turns of the wheel leave our callow friends stranded upon their own resources, in a state of society which is crowded with others in like predicament. Upon the word of one, or two, or several, who have been right there, it is a bleak and rocky, and barren and unknown shore, for a while. Some, thus shipwrecked, perish of starvation, some ship in the first passing craft, merchantman or pirate, seaworthy or sinking; some drag out a miserable existence, feeding upon the false pride which was their only salvage from the wreck.

Another class—and they are the material of which our best pioneers are made—attack and conquer the stubborn soil of those inhospitable shores; and Crusoe-like, finding somewhere in the seams of their old clothes the seeds of individuality, pluck and independence, sow them in spite of every difficulty, for the harvest which is to feed themselves and their posterity. Will our young samples of this sort meekly "endure the ills they have?" Will they—accustomed to refinement and luxuries, just married, perhaps, or about to be, and at rivalry with others like themselves, schoolmates, brothers and sisters, who are in affluent circumstances—will they cower beneath adverse fortunes? accept the grudging charity of friends? or struggle against sharp competition, to keep up appearances upon the pittance that their half-skilled hands and wits can earn? Let us hope not. Let us hope that, rather, they will say "These ills are unendurable, let us fly to something we know not of."

Right here, let me remark that it is not common for the same persons to go pioneering more than once in a lifetime. The ills that are unknown have the glamour and enchantment of distance, but a few years experience of hardships and deprivations, of isolation from society and the comforts of life, of rude locomotion and working without tools, of hauling water and digging where water is not, of Indian scares and prairie-fires; a few years of this, I say, is likely to prove very satisfying.

But let us accompany our young adventurers to their destination, a new ranch upon the virgin soil of Washington Territory. They have probably sufficient means to purchase teams and farming implements, cookstove and provisions, and to make the improvements required by the land laws. If not, they must make shift to earn them in some way, before locating. Perhaps they can get some remunerative work in the nearest town—no matter what—all

new-comers work at whatever honest job offers—if they are the right sort—teaming, clerking, school-teaching, farming on shares, anything to get a start. Quick friendships, and, often lasting ones, spring up among the unconventional citizens of these new towns, and it is almost like leaving home again when our young couple at last depart, with their modest household goods, for their new home. The "goods" have mostly gone on, however, in the shape of a load of lumber, to be transformed into deities anon; but there are the trunks and bedding, the cookstove and the boxes of wedding gifts—some of these quite incongruous to their present surroundings—there is three months provision for themselves and team, there is a big dog, and a little kitten, the one for protection, the other for company, during the long, lonely days. If they are especially fortunate, there is a coop full of chickens in the wagon, and a cow following, else leading the expedition.

The way is long—twenty, perhaps thirty miles—with few settlers intervening (this is a retrospective picture) the valleys are deep, and the hills are stupendous; they can travel but slowly, and provision must be made for camping. By night they must reach the canyon of a certain stream.

It is dark before they come to a halt: not at a comfortable wayside inn, my helpless tenderfoot—but alone, under the darkness of the overhanging trees. The first experience in camping out is apt to prove somewhat bewildering and unsatisfactory, but a little practice soon brings proficiency and a grand feeling of independence. The tired animals are fed, a camp-fire lights up the little circle of figures and trees, supper is cooked and eaten—and with what a relish—their blankets are spread for the night in the wagon, or perhaps on the ground, with the sky for a canopy, the animals for sentinels, the rushing stream for a lullaby.

Perhaps on the last end of their journey it becomes necessary to travel far into night, or they may have missed their way in crossing some trackless prairie in the dark. The load is heavy and the team tired. Our passengers will walk up the hills to spare the horses. Perhaps the night is chill or rainy, or the coyotes—so wild they know no fear—come near with frightful howlings. Never mind, it is a homeward journey, and the little 12x12 cabin which looms in sight at last, has more attractions for them than the stateliest buildings on earth.

The claim has not been jumped; they have prevented that by carefully fulfilling the law, and it is too much isolated to be attractive to claim-jumpers, anyway. No one has been near it since their last visit, weeks before. The bunch-grass is killed all around the cabin, by stock which have taken shelter in its shade. A board is nailed over the one window. A lazy owl sails off from the roof. The field-mice scuttle out through the cracks in the floor as the key is turned. Four bare walls and a roof, perhaps with cracks not even battened, but it is home, at last, and a grand and uplifting sense of proprietorship comes with the thought of the 160 fair and fertile acres which appertain thereunto; a new feeling of importance in being the first settlers, a fever of ambition to make this a very Paradise of homes.

Perhaps it is autumn, and the white fog—a feature of our winters—settles down still and freezing, for weeks, until everything is feathered and furred with frost. Perhaps they see scarcely a human being, except each other, for days, perhaps scarcely see each other by the short daylight. But there is no time to be dull, or lonely. So many hundred things to do. The wood must be hauled from the mountains, twelve, fourteen, sixteen miles away, and a shelter built for the stock; the house must be finished and furnished from the precious pile of lumber outside. Oh! the days are not long enough for everything.

Once a week a load of water must be hauled from the nearest spring, unless snow falls in sufficient quantity to melt; once a day there is a walk to the mail-box—the only link with the outside world—stuck up beside the stage road across the prairie, where, mayhap, the kindly driver has deposited a

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